77TH YEAR

NOVEMBER 1955

Vol. 182 — No. 11

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AMERICAN Gas Journal

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NOW

American® presents

A NEW CONCEPT IN THE ECONOMICS OF GAS MEASUREMENT

The new W-60 Welded Steelcase Meter

Your American Meter representative will gladly present the story of the W-60 Welded Steelcase Meter—latest in a series of products designed to revolutionize the entire concept of the economics of metering.

AMERICAN® METER COMPANY

INCORPORATED (ESTABLISHED 1836)

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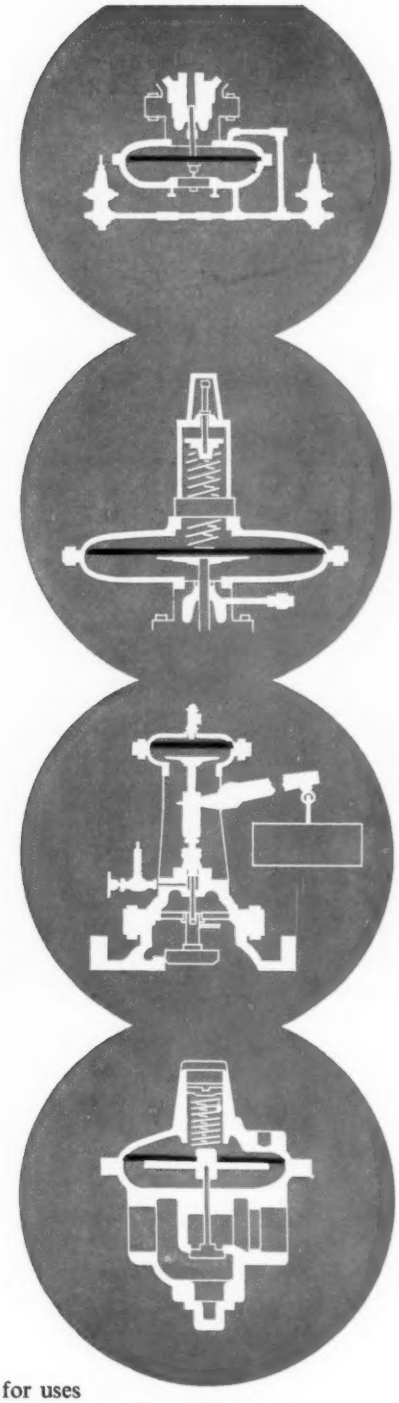


Regulator Diaphragms For Every Need

From high pressure and district to service and appliance regulators, the Vulcan Diaphragm maintains critical controls in ranges of pound to pound, pound to inches and inches to inches.

The strong, flexible, long wearing, high pressure diaphragms are available for uses under hundreds of pounds of pressure. At the other extreme, the thin super-sensitive appliance diaphragms operate dependably at differentials measured in fractions of inches w.c..

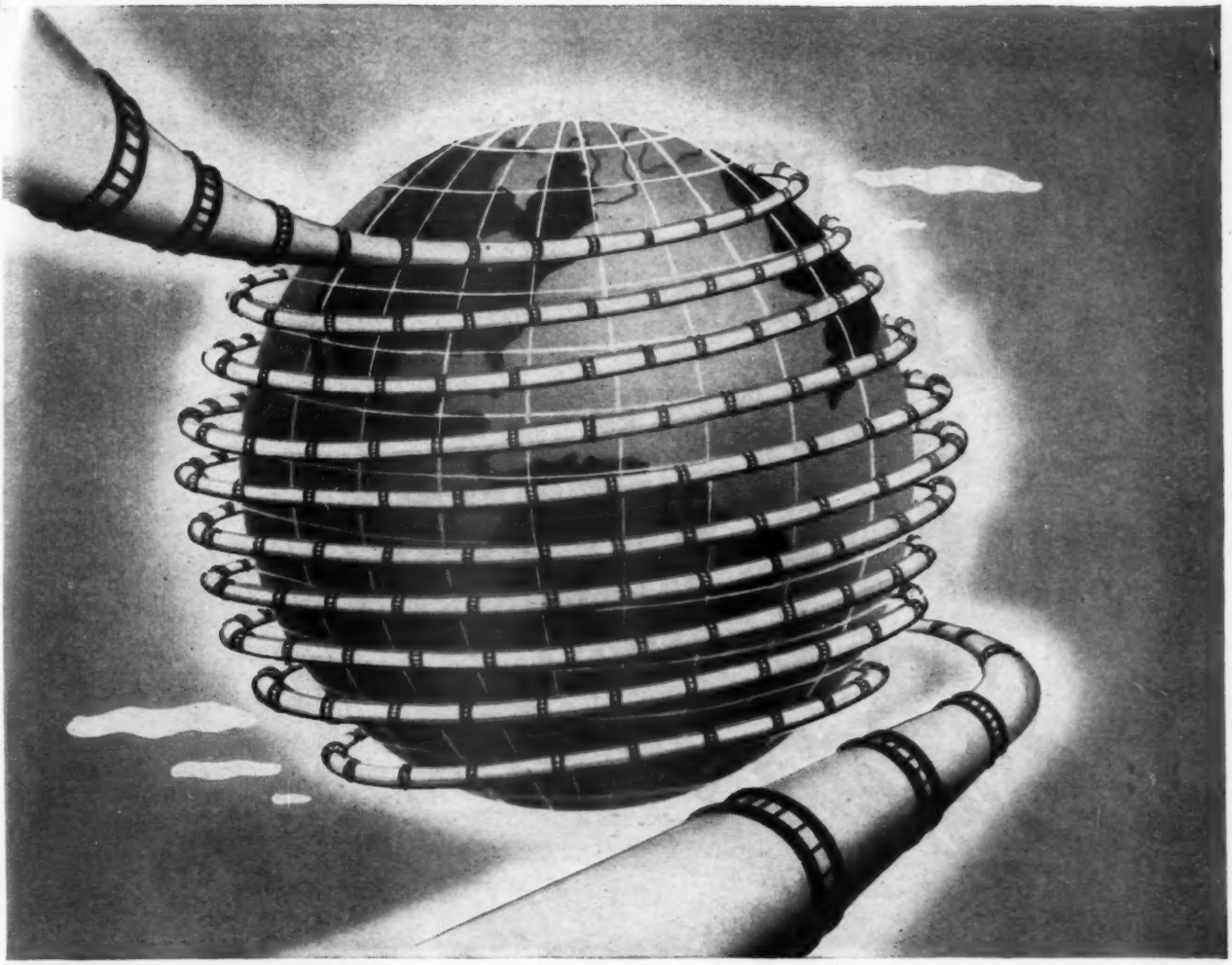
The performance of Vulcan Synthetic Diaphragms make them fully acceptable and completely dependable from field line to home appliance.

Another REEVES VULCAN RUBBER PRODUCT

Where the ultimate is required in fine controls, Vulcan Synthetic Diaphragms are specified.

For information regarding your gas regulator or gas meter diaphragm needs, any representative of Vulcan Rubber Products may be contacted without obligation.

REEVES BROTHERS, INC. • VULCAN RUBBER PRODUCTS DIVISION • 54 WORTH STREET, NEW YORK 13, N. Y.



HALF A MILLION MILES FROM MALTA

Back in the 1880's, the by-product of oil—natural gas—was usually flared at the wells. The leaky, threaded-joint pipe lines of that day made it impossible to transport gas under pressure.

This waste so disturbed Solomon R. Dresser, a Bradford, Pa., oilfield manufacturer, that he set out to perfect a truly gastight pipe joint.

Having pioneered in the use of rubber to cap oilwells, he developed an amazingly tough rubber compound. Around this he built his coupling, designed so that when the bolts were tightened, the rubber gasket compressed and formed an absolutely gastight seal.

To prove its worth, he bought a gas well and built a 5-inch, 4-mile pipe line to Malta, Ohio . . . and later to McConnelsville across the Muskingum River. Recently, parts of the Malta line were inspected by Dresser engineers. The rubber gaskets compressed in the couplings were still lively, the couplings still gastight.

Since Malta, more than half a million miles of pipe have been protected with leakproof Dresser Couplings. If this were a continuous pipe line, it would stretch, gastight, 20 times around the world.

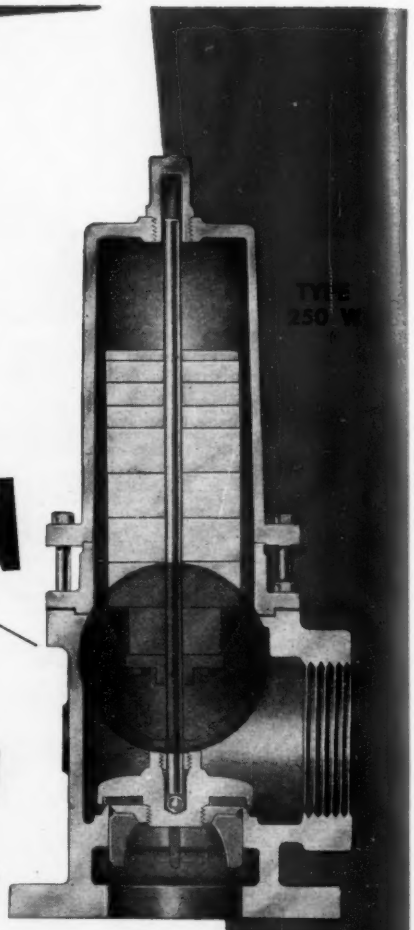
DRESSER®

ONE OF THE DRESSER INDUSTRIES

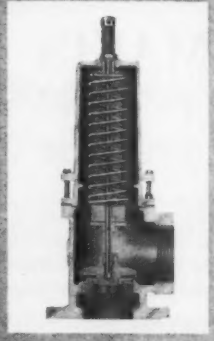
FITTING PARTNER FOR THE GAS INDUSTRY

Dresser Manufacturing Division, 59 Fisher Ave., Bradford, Pa. Warehouses: 1121 Rothwell St., Houston; 101 S. Airport Blvd., S. San Francisco. Sales Offices also in: New York, Philadelphia, Chicago, Atlanta, Denver. In Canada: Toronto, Calgary.

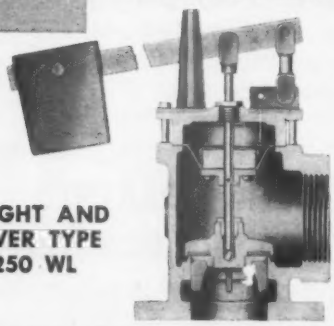
WHAT A DIFFERENCE A "D" MAKES in the NEW CHAPLIN-FULTON High Capacity *Safety Valves*



"D" stands for diaphragm, and what a difference it makes in the discharge ability of the new Chaplin-Fulton High Capacity Safety Valves—2½ times more flow capacity. After initial opening, the discharge pressure acting upward on the diaphragm insures maximum opening, and guarantees full flow with minimum increase in in the blowing pressure. This means greater protection for the users of Chaplin-Fulton Type 250 Safety Valves, adaptable in three models to all gas systems from ounces to 100 pounds. Sizes 2" to 6" inclusive.



SPRING TYPE
250 S



WEIGHT AND
LEVER TYPE
250 WL

Simple.... Foolproof

ACCURATE CP MFG CO DEPENDABLE

Chaplin-Fulton
MANUFACTURING COMPANY
Pittsburgh 25, Pennsylvania

SV-53-1

AMERICAN
Gas Journal

VOLUME 182 | 97TH YEAR : : NOVEMBER, 1955 | NUMBER 11

This month . . .

How does the gas industry shape up in the eyes of its people? The answers were forthcoming at two annual meetings held in California last month: GAMA and the joint AGA-PCGA conventions. At both locations, the men behind the blue flame were optimistic. They noted an intense effort on the part of the industry in the past year to "move ahead," set forth clearer goals for the future, and work towards industry unity. *You'll find reports on pages 9 and 40.*

A battle looms up in the upper North Central States where a new company —Midwestern Gas Transmission—is proposing natural gas service to a host of communities that have been waiting a long time for such service. But the companies "close by" (most with plans of their own for servicing this neglected area) plan to fight the recent FPC application. *Details on MGT on page 20.*

In Texas, one of the best "salesmen" in the gas kitchen appliance business is the Texas State Fair . . . homemakers just naturally wait 'til Fair Time each year to see the latest in gas kitchens . . . and some literally "beg" to buy the complete units . . . *A glimpse at pages 33-35 will show why.*

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NOV 2 1 1955

Old Days Recalled . . . from

AMERICAN GAS JOURNAL

EST. 1859

90 YEARS AGO

NOVEMBER 1865

MESSRS. EDITORS—Your correspondent F. J. L., writing . . . on the subject of leakage of gas mains, assumes that it is impossible to prevent leakage. . . . The subject is one of very great importance, as all will admit when it is understood that the loss to gas companies is fully equal to an average of twenty per cent. Of all the gas manufactured by them, by reason of leakage through the joints of mains. . . . There is now in use a metalic joint that . . . perfectly secures against the waste . . . the invention of Mr. R. C. Robins' joint for water and gas pipes. . . At the foundries . . . a lead ring of the proper size and weight is cast into a groove or recess in the bell end of the pipes, while the other, or spigot end is cast with a short taper . . . The putting the pipes together is effected by means of an hydraulic jack and rods with a yoke . . . The joint has proved tight under all circumstances and in all weather.—T.

THE AMERICAN METER CO.—Organized under the General Manufacturing Laws of the State of New York . . . is now prepared to furnish wet and dry gas meters, station meters, governors, pressure indicators & registers, service and meter cocks, and all the other articles in their line appertaining to the use of Gas Works. The combination of Mechanical and Scientific Skill, and the long experience of the several members of the Company, is a sure guarantee of durability, and excellence of workmanship. [Advertisement.]

50 YEARS AGO

NOVEMBER 1905

AT THE ANNUAL MEETING of the Boone (Ia.) Gas Company the officers elected were: President, E. G. Pratt, Milwaukee, Wis., Vice-President, Mr. George D. Roper, Rockford, Ills. . . .

THE MARKET FOR GAS SECURITIES. There is little to say respecting the gas share market that might be considered novel. The weakness in Consolidated [Gas Co., New York] is not to be accounted for on any other basis than that of speculation, pure and simple. The price of Brooklyn Union is very low, even with a selling rate of 75 cents per 1,000 given due consideration. Peoples, of Chicago, is 102¾ to 103, and old Baltimore Consolidated is very cheap at the reported asking price, 87¼.

THE CRUSE-KEMPER COMPANY . . . has been awarded a contract by the Elizabethtown (N. J.) Gas Light Company for . . . a triple-lift holder, to rest in steel tank. The capacity . . . is estimated at 1,000,000 cubic feet.

THE PROPRIETORS of the El Reno (O. T.) Gas Company have purchased the rights and properties of the local electric lighting concern.

THE BOSTON POST of the 9th inst., says that work has been started on the new pipe line to connect the plant of the Waltham Gas Light Company with the mains of the Boston Consolidated Company. . . . A 20-inch pipe is being laid. . . . Under the contract the Waltham Company can purchase gas cheaper than it can be manufactured. CONSOLIDATION OF ASSOCIATIONS. At the last meeting of the American Gas Light Association, E. G. Cowdery of St. Louis, the president, told the thirty-third annual meeting in Milwaukee, a committee was selected to act with a similar committee for each of the other Associations throughout the country to determine the advisability . . . for the amalgamating . . . of the different Gas Associations into one large national body . . . This committee held a meeting . . . and decided that the amalgamation . . . was advisable, if a way could be found to accomplish it . . . with the approval of all parties . . . a sub-committee was selected . . . so that future conferences might be held to find the means. . . . This sub-committee has made its report . . . and through your Council will recommend its adoption . . . My only request is that it will be considered upon its merit, without any feeling of prejudice. [Later, during the meeting, the proposal "to inaugurate the American Gas Institute . . . was carried unanimously."]

25 YEARS AGO

NOVEMBER 1930

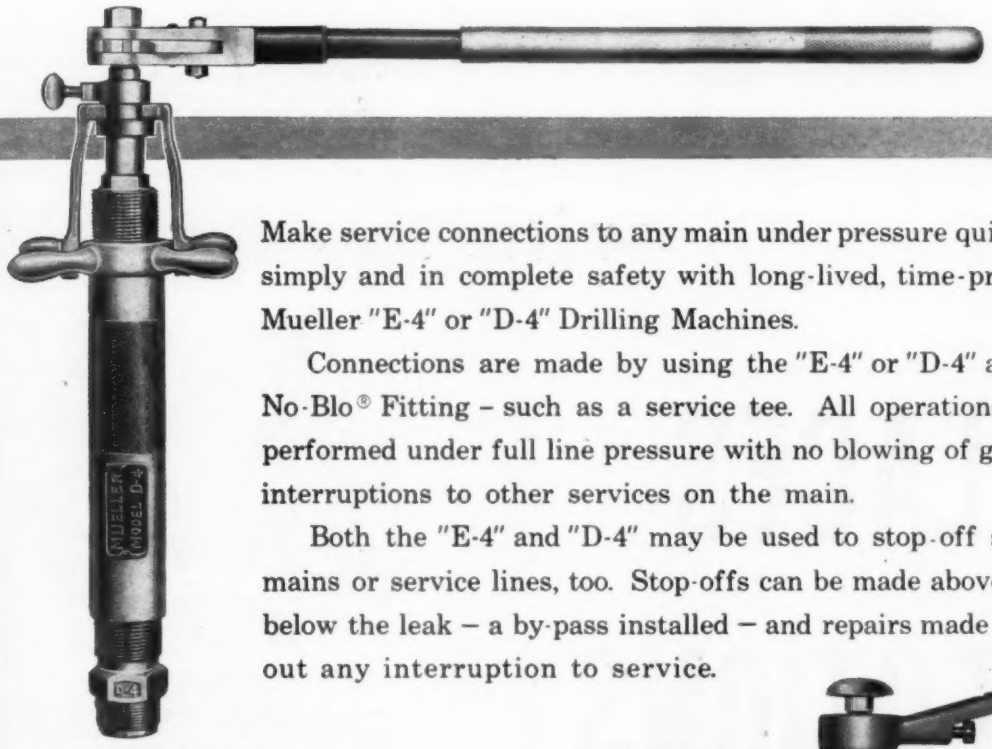
NEWLY-ELECTED officers of American Gas Association: president, Clifford E. Paige, vice president, The Brooklyn Union Gas Co.; vice president, R. W. Gallagher, president, The East Ohio Gas Co.; vice president, Arthur Hewitt, general manager, Consumers Gas Company of Toronto; vice president, N. C. McGowen, vice president, Louisiana Gas Co.; treasurer, William J. Welsh, president, New York & Richmond Gas Co.

THE GAS INDUSTRY, said Clifford E. Paige at the AGA convention on its own motion, never entered the appliance business. "It was thrown into this business as a necessity for survival." Mr. Paige then went on to state that many of the older gas companies in the early days showed little interest in gas appliances. He brought out that the first appliances were crude and inefficient. He showed that the development of the electric light started the gas men in the direction of becoming appliance conscious. The progress in building gas appliances is in line with the development in taste of all housewives, with the result that today practically all appliances add materially to the appearance of the surroundings in which they are placed.

CENTRAL HUDSON GAS & ELECTRIC CORP. was featured in a full-page ad by National Tube Co., for "unusual methods and fast time feature laving of high pressure Gas Line across Hudson River." The project, between Beacon and Newburgh, was an 8-inch line of butt-welded 40-foot lengths, "reinforced by a short sleeve of 9-inch standard pipe fitted over the joint and welded to the pipe at both ends." Each sleeve was tapped with a ⅛-inch hole through which compressed nitrogen was admitted to the 5/32-inch space between the pipe and sleeve at 350-psi as a test on each joint." The type of joint used for the line "was specially designed and developed by T. A. Corby, Central Hudson Gas & Electric Corp." Despite storms, tides, rough water and heavy river traffic, the ad said, the Central Hudson project of 6250-foot was laid in 11 days and 7 hours.

MUELLER®

Safe Service Connections!



Make service connections to any main under pressure quickly, simply and in complete safety with long-lived, time-proven Mueller "E-4" or "D-4" Drilling Machines.

Connections are made by using the "E-4" or "D-4" and a No-Blo® Fitting – such as a service tee. All operations are performed under full line pressure with no blowing of gas or interruptions to other services on the main.

Both the "E-4" and "D-4" may be used to stop-off small mains or service lines, too. Stop-offs can be made above and below the leak – a by-pass installed – and repairs made without any interruption to service.

"D-4" DRILLING MACHINE*
Drills from ¼" through 2⅛"
Operating pressure to 500 p.s.i.

"E-4" DRILLING MACHINE*
Drills from ¼" through 1"
Operating pressure to 500 p.s.i.

See your Mueller Representative, consult Catalog G-97 or write direct for full specifications.

** Now with "O" Ring Boring Bar Seal!*

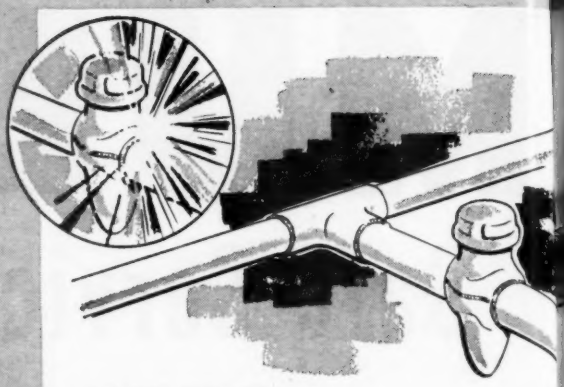
MUELLER CO.
Dependable Since 1857
MAIN OFFICE & FACTORY DECATUR, ILLINOIS

NO-BLO®

MUELLER®

NO-BLO®

Method

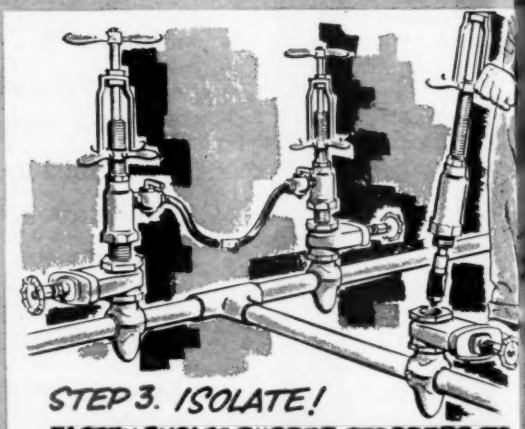


STEP 1. WELD!

TACK WELD HALVES OF EACH FITTING TOGETHER, POSITION AND THEN WELD TO PIPE. PLUG SHOULD REMAIN IN FITTING —*HAND TIGHT*— DURING WELDING. TEST. ATTACH SPECIAL GATE VALVE TO FITTING.

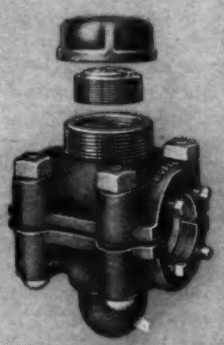
with the No. 1 Line

REPLACES TEE SECTIONS SAFELY...



STEP 3. ISOLATE!

FASTEN BYPASS RUBBER STOPPERS TO SHAFTS OF H-17135 STOPPING MACHINES. ATTACH MACHINES TO VALVES AND CONNECT BYPASS LINES. OPEN VALVES AND INSERT STOPPERS. TEE IS NOW ISOLATED AND MAY BE REPLACED OR REPAIRED.



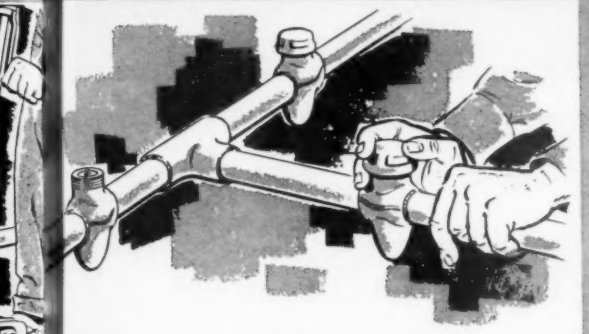
MECHANICAL JOINT FITTING for 2" cast iron and steel pipe and 2¼" cast iron pipe. Ideal for fast, emergency stop-offs or when welding is not desired. Re-usable. Working pressures to 125 p.s.i.

This is another of a series showing the broad application of Mueller No-Blo® Fittings and Machines used for their installation.

STEP 2. CUT!

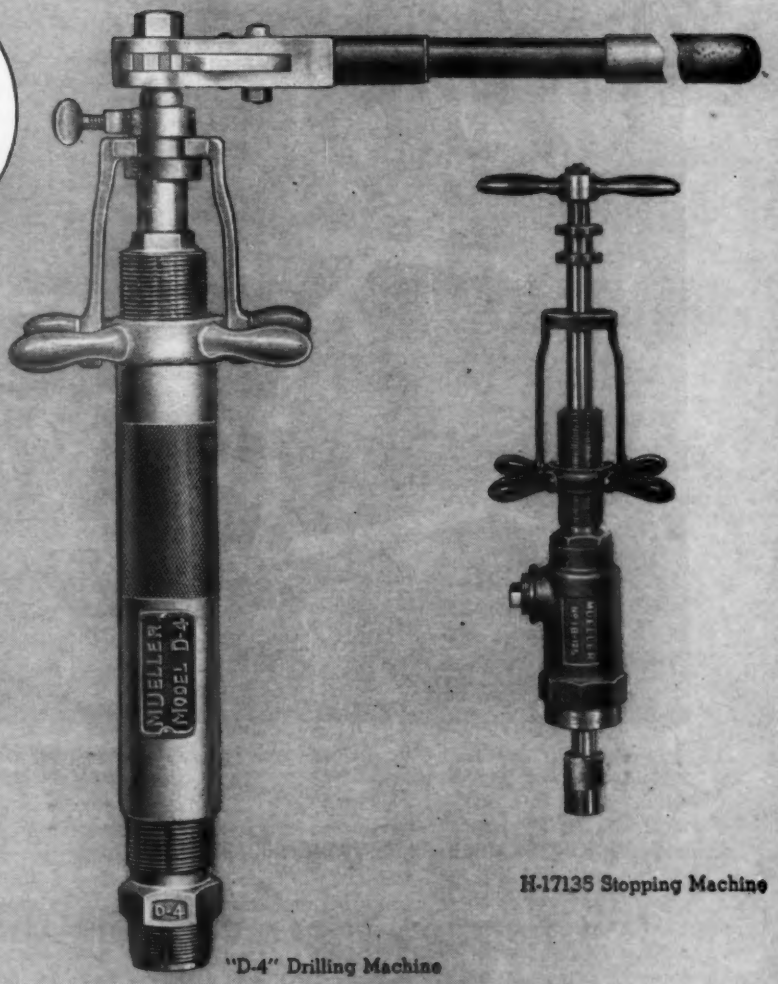
ATTACH "D-4" DRILLING MACHINE TO GATE VALVE AND MAKE CUT ENTIRELY THROUGH PIPE. RETRACT SHELL CUTTER —WHICH RETAINS PIPE COUPONS. CLOSE VALVE AND REMOVE MACHINE. REPEAT CUT ON EACH FITTING.

Stopper Unit..



STEP 4. COMPLETE!

RAISE STOPPERS, CLOSE VALVES AND REMOVE MACHINES. REPLACE STOPPER WITH COMPLETION PLUG, REMOUNT STOPPING MACHINES, OPEN VALVES & SCREW PLUGS INTO FITTINGS. REMOVE VALVE AND CAP FITTINGS.



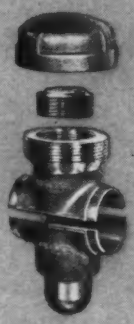
"D-4" Drilling Machine

H-17135 Stopping Machine

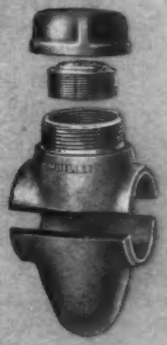
Tee sections may be easily replaced or repaired under pressure when using Mueller Line Stopper fittings and equipment. The entire tee is isolated with three H-17135 Stopping Machines while the gas flows through bypass lines. Operations are performed in complete safety without interrupting service or allowing gas to blow.

The machines shown above are used to drill the main, stop-off the lines and plug the fittings. Lines may be stopped-off and fitting plugged at pressures up to 125 p.s.i.

Consult your Mueller Representative, Catalog G-97 or write direct for full information on Line Stopper Units or other No-Blo Fittings.



OLDER-BRAZE FITTING
r 1½" and 2" Type "K" Copper pe. Cast from special analysis onze specifically adapted to is use. Complete with brass ug and cap. Working pressures 125 p.s.i.

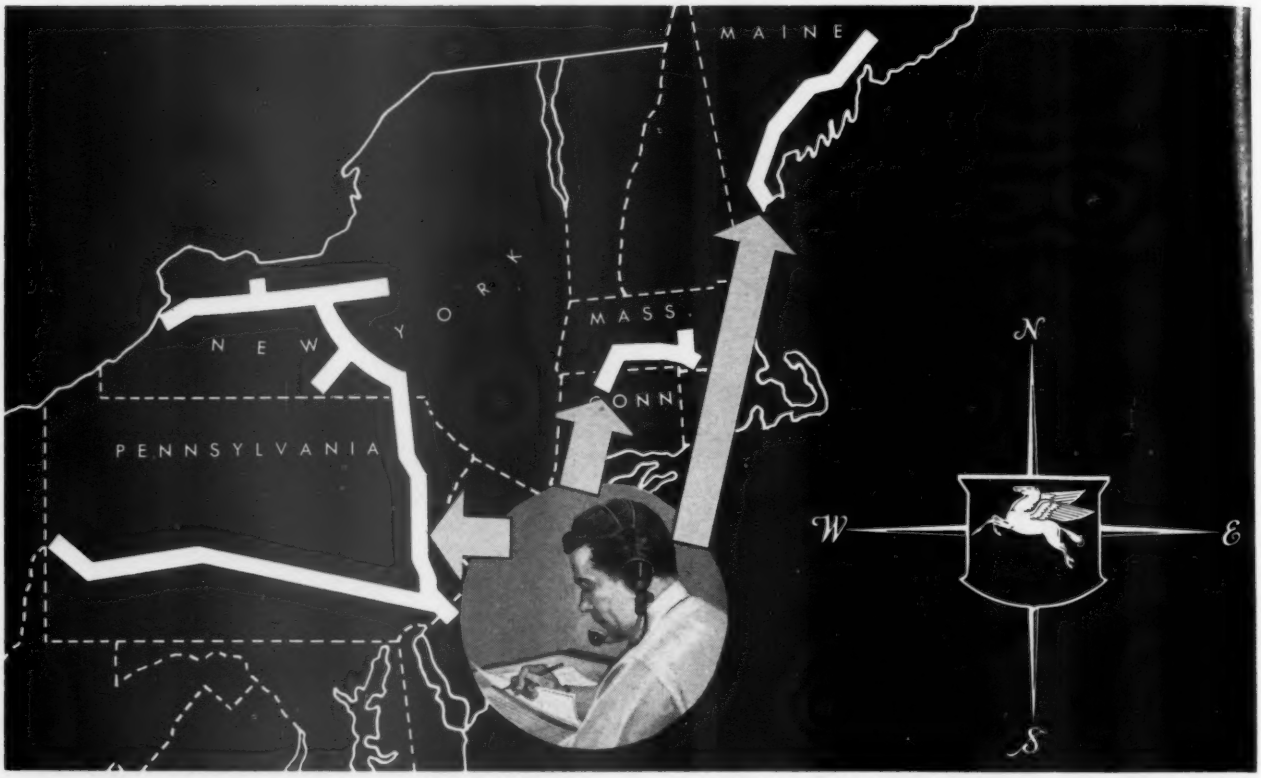


WELDING FITTING
for 1½", 2" steel pipe. Furnished with cast iron or steel cap.

MUELLER CO.

Dependable Since 1857

MAIN OFFICE & FACTORY DECATUR, ILLINOIS



The dispatcher receives hourly reports on pressure, temperature, gravity, and rate-of-flow from each station on three pipe lines.

SOCONY MOBIL OIL COMPANY, INC., REPORTS:

One dispatcher controls three eastern pipe lines with Bell System private line telephone service

24 YEARS OF SATISFACTORY SERVICE

One dispatcher—in Plainfield, N. J. —controls 1077 miles of Socony Mobil pipe line in seven states, as shown on the map above.

He uses Bell System private line telephone service to get hourly reports on pressure, temperature, gravity, rate-of-flow and other operating information from as many as 60 points along the system.

Over the same facilities, he issues orders to cut in additional pumps or cut them off, run gasoline and distillates into tanks, or put products into the line from refineries.

Socony Mobil started using Bell System private line communications 24 years ago, and the company's growth has been accompanied by a corresponding growth in its communication system.

The Bell System can supply services to fit *your* exact communication needs, too. Just call your Bell Telephone representative for further information.

Socony Mobil uses these Bell System private line services:

Private line telephone service for pipe line dispatching and general administration.

Private line teletypewriter service for fast written communication between New York headquarters and the Paulsboro, N. J., refinery.

BELL TELEPHONE SYSTEM

TELEPHONE TELETYPEWRITER MOBILE RADIO TELEMETERING AND REMOTE CONTROL CHANNELS

Continuing Realism Biggest Need in Industry Activities

Banks, Sherwin emphasize essentiality of industry unity; joint convention program has wide range of interest

● THE GAS INDUSTRY OF THE UNITED States convened in October under the hospitable auspices of California for what was widely described as the most pleasant, informative and beneficial general convention of recent years.

The combined American Gas Association-Pacific Coast Gas Association convention in Los Angeles brought together more than 2700 delegates for a program of wide gas industry interest, with participation representing Seattle-to-Fayettville, Arkansas; San Diego-to-Cambridge, Massachusetts.

Realistic expressions by the speakers, with respect to the problems and position of the gas industry, gave full weight to the accomplishments and advances that have been recorded during the association year that ended at the conclave.

Energy requirements and resources were evaluated; public buying habits were forecast; our business "system" was reviewed concisely; gas industry promotion, advertising, research, selling went under bright spotlights. Competition, present and future, received full attention; new technologies for management and operation were discussed.

"I feel that I would be neglecting my responsibility as president of AGA if I did not urge that an integrated selling effort be launched by the entire gas industry — distributors, pipeliners and producers alike," F. Marion Banks, (who is also president of Southern California Gas Company), declared in his presidential address at a general session. "Such a program might well be a sound first step toward building industry unity.

F. Marion Banks

"If components of this industry were to try to get together on a selling program, they would, of necessity, learn one another's problems.

"I do not minimize the differences that have been aired between different companies and sectors of the gas industry in recent months," Banks continued. "Nevertheless, I believe it is essential that we make a strong effort to mitigate differences between ourselves, that we bind up any wounds we have shown in public and prepare to go forward with a united program."

● IN HIS ADDRESS AS PRESIDENT OF PCGA, E. D. Sherwin, also president, San Diego Gas and Electric Company, told the convention that "we should not take it for granted that gas has an inside track on the house heating load. The electrically operated heat pump system has not been too generally used due to its high initial cost, even though it affords summer cooling. There are indications that the cost of this type of equipment will be substantially reduced during the next few years, in which case the gas industry could lose a portion of new house heating load. However, the gas industry is not asleep on this problem, and undoubtedly will have its gas-operated units competing price-wise with ones that are electrically-operated."

E. D. Sherwin

● THE POLITICAL CLIMATE IS OF GREAT importance to gas utilities, John F. Merriam, president, Independent Natural Gas Association of America, and president, Northern Natural Gas Company, emphasized to a general session.

"Utilities are a political target," he said, "particularly in an election year. No opportunity should be left unturned to get information before the public that will minimize the effects of political attack.

John F. Merriam

"The industry is in a superbly strong position today," Merriam continued. "Energy is at the foundation of our economy — and roughly 25 per cent of that energy is now gas. But, we don't brag enough. I flinch at my own use of the word, but it emphasizes the point. We have much to brag about."

Touching very briefly on the theme of his address before the 1954 convention, Merriam noted that there is still dissension in the industry, though there has been some progress in eliminating it. In his hope that the progress would continue, he emphasized that "one segment of the industry cannot profit at the expense of another."

Banks Sees Bright Future

"During 1955, we in AGA have attempted to accent the modernity of our service and the great potentialities

. . . 40,000,000 customers by 1975: a real challenge for the gas industry

of our fuel and appliances. Our laboratories' requirements have been strengthened to the point of rendering obsolete all gas ranges requiring manual lighting. On the basis of figures to date, total sales of gas are running more than 8 per cent ahead of last year and may reach a new high of 66 billion therms.

"We continue to add more than 800,000 new customers a year and should reach a new peak of over 29,000,000 utility gas customers in 1955. Total revenues from the sale of gas will amount to nearly $3.5-billion this year, a new record, nearly 12½ per cent ahead of the 1954 figure.

"The AGA Bureau of Statistics predicts that by 1975, based on present rate of population increase and present per capita consumption of gas, our industry will be serving over 40,000,000 consumers with about 170 billion therms of gas. Truly that is challenge enough for any industry.

"Competent groups are agreed that we should attempt to put together an evening television program of real caliber with ample opportunity for local emphasis and tie-in. An AGA television committee has been appointed and has held initial meetings to discuss the possibilities of such a program, and progress was reported to the executive board meeting.

"The executive committee recommended that the present public information and public relations activities of the association be continued within the PAR plan and urged broader company participation and financial support.

"At this year's executive conference, the question of what kind of an association the gas industry needs was considered.

"James F. Oates Jr., chairman of The Peoples Gas Light and Coke Company and a director of this association, presented a statement of policy so clearly that I would like to quote parts of it:

" 'The association should be democratically controlled so that all views will have careful hearing and fair appraisal.

" 'The determination of policy should be in the hands of the volunteer representatives of the industry. They, and only they, can command the continuing loyalty of the membership. Such support will follow from their unrewarded services, their practical experience and their democratic selection for limited terms. The board, which should manage, will have the help of committees in the determination of policy.

" 'Policy, once determined, should be implemented and pursued by the professional staff—which has the time, training and facility to do the jobs that have been formulated to serve the interests of all.

" 'We, the volunteer laymen, should argue out our differences and hammer out conclusions in the forums of the committees and the boards.

" 'The existence of the association cannot depend upon the continuing allegiance of overwhelming industry support for one leader, however clever and wise and good he may be. Every association president and board member is, however, expendable. In fact, they serve only for limited times.

" 'In short, we need an organization that can do on a national level those things in which we all have a great interest—things that cannot be done as well, or at all, by individual companies acting separately and alone. We do not need or want an organization reaching out to the local level through regional offices or otherwise to replace the principles or methods of local management . . . or to promote a fixed pattern of approach to operations in any field of our industrial activity. The local companies will be the stronger, the more they can be encouraged and inspired to develop their own patterns to deal with their own problems.' [End of quotation from Oates.]

"Subscriptions for 1955 to the PAR plan have exceeded $2,300,000 for gas utilities and more than $250,000 additional for pipe line research, a record attainment. Many companies also subscribed to the new public information program under the PAR plan.

"Some $1,230,000 will be spent this year in promotional and advertising activities, and this amount will be augmented greatly through advertising and promotional expenditures of utility companies and appliance manufacturers. It is estimated that AGA's cooperative work with appliance manufacturers has brought about more than $1,000,000 of additional national advertising by such manufacturers. We welcome the advertising support being contributed by the GAMA group of equipment manufacturers under the leadership of Al Rockwell. It is only through the united support of our gas company and manufacturer members that we have been successful in bringing the story of gas and modern gas appliances to the public.

"About $1,000,000 will be devoted to research this year, with more than 50 projects devoted to gas utilization and gas operations. An original appropriation of $200,000 for air conditioning research probably will be increased to $300,000 before the year-end, with a like amount earmarked for this important research work next year.

"Several very interesting air conditioning processes have been under review by the industry as a whole and subjected to intensive research. We hope to have something definite to show by 1956.

"Gas production occupies a prominent position in the PAR research program with extensive work being done in peak shaving and substitute gases. About $300,000 per year is being devoted to perfecting methods of producing a gas from coal or oil that can readily be substituted for natural gas. The work of AGA in this field is additive to that being done by the Bureau of Mines, by Pittsburgh Consolidated Coal and some of the pipe line companies.

"This year has faced the staff and the employees of the association with a problem unusual indeed. Without the personal direction of Managing Director Carl Wolf throughout that year, they have met the challenge of extensive review of the association activities with vigor and at the same time have advanced the association's achievements.

"Looking to the future, I wish to say that one of our accomplishments has been to obtain the services of our new managing director, Chester Stackpole. His energetic and friendly approach together with his knowledge of the industry and his quickness to understand its problems, will serve our industry well."

Sherwin Notes Competition

"While this is the first Pacific Coast annual meeting of the American Gas Association, it is not the first time that the Pacific Coast Gas Association has acted as host to the whole gas industry.

"In 1915, the year of the Panama-Pacific Exposition at San Francisco, the American Gas Institute met there in connection with the International Gas Congress, in which were represented 23 national and regional gas associations. Edward C. Jones, one of the founders of the Pacific Coast Gas Association, was president of the American Gas Institute that year.

"The American Gas Association was formed in 1918 by the merger of the American Gas Institute and the National Commercial Gas Association. Then, as now, the Pacific Coast Gas Association was one of its affiliates,

and Pacific Coast gas men have been prominent in its affairs ever since.

"Its presidents have included Alexander B. Macbeth of Southern California Gas Company, in 1927; Arthur F. Bridge of Southern Counties Gas Company, in 1943, and now F. Marion Banks of Southern California Gas Company, in 1955.

"The Pacific Coast Gas Association is affiliated with the American Gas Association, but remains an independent organization, probably due to the nature of our business and its needs. The companies that make up our industry are often local organizations serving one city or, at most, part of one state. A regional association justifies its existence by its ability to provide educational discussion forums for its members in the different sections without a great deal of travel expense, by its ability to discuss, and often solve, mutual problems of its members — problems peculiar to a particular area —and by its ability to hold more frequent meetings to afford as great attendance and participation as possible.

"During my term of office, I attended as many section meetings and conferences as time permitted and was particularly impressed by the ability and enthusiam displayed by our younger people, from which group will come the future leaders of our industry.

"It is encouraging also to note the faith our top managements have in our association by giving our younger members a chance to participate in these conferences and section meetings.

"One subject usually discussed at gas industry meetings is electric competition. It gets bigger and greater every year, and yet who will deny the present prosperity of the gas industry. Perhaps both gas and electricity have developed further and faster because of this competition. In any event, it has spurred ingenuity and inventiveness.

"Our members from the Pacific Northwest know the full effect of electric competition. They are in the manufactured gas business, and have to compete with low-priced electrical energy, which results from high customer usage and relatively abundant water power. Furthermore, the energy is often generated and transmitted by governmentally owned facilities, and then distributed by public utility districts.

"Although most of us have lost very few gas customers to electricity, it is probable that the number would be greater if it were not for the cost of conversion to electricity.

"Yes, we have real competition ahead, but our industry will overcome the obstacles. Some of you remember the time when gas had but ONE use—illumination—whereas today it has literally thousands of uses.

"Our association, along with others in the country, will continue its progressive program and research studies to meet competition, and to present a challenge to our competitors as well as to the people within our industry.

All Utilities Urged To Coordinate Activities With Development Program

. . . Wolfe hands sales executives questions for checking results of their activities

● SALES EXECUTIVES OF GAS UTILITIES were urged to review their company activities, against specific questions, in coordination with the Gas Industry Development program by J. Theodore Wolfe, executive vice president, Baltimore Gas & Electric Company, during his address before the American Gas Association-Pacific Coast Gas Association convention, last month.

J. Theodore Wolfe

After a background of the necessity for the program and its formulation, Wolfe summarized the accomplishments. The address was delivered by E. H. Eacker, president, Boston Gas Company, due to a sudden illness of Wolfe while attending the convention.

"Whither are we going with this ACTION PROGRAM? What are the results?

"We are making headway towards the accomplishment of most of our objectives. Suppose we tick them off, one by one, and see what's going on. ...*"Objective 1 — Upgrading of appliances.* Do I have to tell any residential salesmen that the 1955 gas ranges on sales floors are vastly improved over anything you ever had to sell before? That the new ignition systems, utilizing the hypodermic needle pilot on each top burner and the minipilot in oven and broiler, give the gas industry for the first time a fully automatic appliance that is both cool and less costly than any comparable appliance? That in style as well as performance you now have an appliance of which you can properly brag, even though the 1956 models are going to be even much better?

"There was another specific proposal in the Action program to the effect that automatic ignition of all burners on a gas range should be made a requirement for the AGA seal-of-approval at the earliest possible date. This, again, called for upgrading in the interest of safety as well as convenience. After January 1, 1956, the laboratories will not issue any new approvals for ranges that do not have fully automatic ignition, and prior approvals that are still outstanding will be good only until January 1, 1957.

"I would not have you think that the GID committee, or the PAR committee, or the various other committees of AGA, working together as they are in the Action program, are solely responsible for the efforts that are being made to provide the gas industry with appliances that will hold and develop the residential load. Many of the appliance and equipment manufactur-

ers have expanded their efforts at research and product design. In these developments, the GID committee serves only as booster, advisor and solicitor of industry support.

"Objective 2 — Increased promotional activities and expenditures by utility companies and appliance manufacturers. In many specific instances, there have been most gratifying developments although, for the industry as a whole, there is a long way to go before this objective will have been accomplished.

"We plan to hold some regional meetings early next year for top executives and sales managers at which, among other things, the programs put on and the results obtained in the 10 cities will be highlighted.

"There is one thing about the 10-city-program that worries me. That is the tendency of some people to think that the Action program is the sole responsibility of 10 utility companies. It is the responsibility of every company. And far more than 10 have recognized it by expanding or revitalizing their sales and promotional programs. Not until the industry as a whole has done so, however, will Objective 2 have been accomplished.

"Objective 3—Reorientation of promotional emphasis toward higher quality appliances. In the main, the gas industry has been a price-conscious industry. As one evidence of this, efforts to get the industry behind the CP range program some years ago were far from a rousing success, although some utility companies, including our host company here in Southern California, backed it 100 per cent. Until very recently, the industry at large failed to see what the manufacturers of automobiles had long ago proved to themselves: The buying public is even more concerned with quality than it is with price. Gas utility companies were pressing appliance manufacturers to hold their prices down and were resisting the incorporation of new features in gas appliances that would increase their sales prices.

"One of the prime objectives of the Action program is to overcome the industry's excessive price consciousness by encouraging the promotion of quality appliances. As far as possible, we are forcing this through the development of new and more exacting requirements for the approval of appliances by the AGA Laboratories. But there is a limit to how far this approach can take us, since the approval requirements are primarily related to safety alone. Gas utility companies must take the lead in promoting quality and must give their full support to the manufacturers of quality appliances.

Gas utilities must take lead in promoting quality instead of price . . .

"It is a slow and sometimes painful process to overcome a deep-rooted price consciousness, and we are a long way from finishing the assignment; but, in my honest judgment, substantial progress is being made.

"I won't take time on *Objective 4* — improved installation and service policies — simply because the GID committee hasn't done a blooming thing about it as yet beyond urging the industry to give it attention.

"As to *Objective 5* — a greater degree of continuing cooperation between various elements of the gas industry—I think we can mark up real accomplishment.

"AGA and GAMA, at the board and staff levels, are working more closely than ever before.

"Manufacturers are participating more directly in the development of AGA promotional programs and are gearing their own promotional and advertising activities to the programs set up by AGA.

"On the various approval requirements committees, there is a greater degree of harmony between manufacturer and utility representatives in seeking a common objective — better appliances.

"Individual manufacturers are using groups of utility executives to advise on the development of research and promotional programs, and utility companies are participating in the research programs of manufacturers by purchasing experimental appliances for testing in the field. At the same time, research projects undertaken through AGA's PAR program are being geared to the related activities of manufacturers wherever feasible.

"Equipment manufacturers—that is, manufacturers of meters, valves, pipe, etc., as distinguished from appliance manufacturers — have organized an equipment manufacturers advertising program, using the GID committee in an advisory capacity, and are spending sizeable amounts to advertise gas and gas appliances, thus augmenting the national advertising program of AGA.

"AGA and the regional trade associations are achieving greater coordination in the development of their respective programs, this convention being one outstanding example.

The Action program is really a program for your individual companies, and its effectiveness depends on you.

"What objectives and accomplishments can you report? Ask yourselves these questions:

1. Have you really assumed responsibility for the development of an adequate sales volume of gas appliances in your territory? Do you really know what an adequate sales volume is?
2. Are you really putting your sales and promotional emphasis on quality instead of price? Have you completely abandoned the sales and promotion of gas ranges that require a match?
3. Are you giving preferential treatment to those appliance manufacturers who do a real job on upgrading and promoting their appliances? Are you urging them to do more even though it may require you to pay more?
4. Are you really covering the new home market in a determined effort to get gas appliances of acceptable quality into new homes?
5. Are you doing everything within your power to replace outmoded gas appliances with new and modern appliances?
6. Are you working aggressively with manufacturers, distributors and dealers, as well as with architects and builders?
7. Are you offering your customers adjustment service on all gas appliances at no extra cost beyond what is covered by your gas rates? Are you sure that parts replacement service is available at reasonable cost?
8. If you are not one of the 10 companies that are engaged in the demonstration city program, have you done anything of a really substantial nature on your own during the past 3 years to demonstrate that you are part of the Action program? Have you made any major changes in your sales or promotional policy? Have you reorganized or expanded or reoriented your sales and promotional forces? Have you substantially lifted the level of your promotional expenditures?

When every one of you can say yes to every one of those questions, the objectives of the GID program will have been accomplished.

Mitchell Named New AGA President

Dean H. Mitchell, president, Northern Indiana Public Service Company, is the new president of American Gas Association. He is the first Indiana utility executive so honored.

Other new association officers are: **C. H. Zachry,** president, Southern Union Gas Company, first vice-president; **A. W. Conover,** president, Equitable Gas Company, second vice-president, and **Vincent T. Miles,** treasurer, Long Island Lighting Company, treasurer.

Mitchell, a native of Pennsylvania, has spent more than 17 of his 30 years in the utility business as president of his company. After World War I, he entered the utility business with the Calumet Gas and Electric Company, which later became part of the Northern Indiana Public Service Company. In 1924, he became assistant auditor and during the following years, he served as auditor, comptroller, general manager, vice president and a director. He was elected president in 1938.

The Secretary of the Interior appointed him a member of the National Gas Industry Advisory Council 4 years ago. He also is a director and past president of both the Indiana Gas Association and Indiana Electric Association, having recently completed his second term as president of the latter.

New AGA officers, left to right, are Dean H. Mitchell, president, C. H. Zachry, first vice president, A. W. Conover, second vice president and Vincent T. Miles, treasurer.

In addition to his active participation in utility affairs, Mitchell is prominent in state and national civic, charitable and business organizations. He is a past president of Indiana State Chamber of Commerce, and was treasurer of United States Chamber of Commerce in 1953 and 1954. He was a director of United States Chamber of Commerce for 6 years.

He is a director of Chicago, South Shore and South Bend Railroad and the Gary National Bank and a member of the board of governors of the Associated Colleges of Indiana. He also is a member of the Hammond Rotary Club, Hammond Chamber of Commerce and a director of the Brooks House of Christian Service.

Fifteen executives from gas utility, pipe line and appliance manufacturing companies in the United States and Canada were elected directors of AGA for 2-year terms:

M. A. Abernathy, vice president United Gas Pipe Line Company; **P. E. Beckman,** vice president, Pacific Gas & Electric Company; **R. E. Crawford,** president, Minnesota Valley Natural Gas Company; **Lyle C. Harvey,** senior vice president, Carrier Corporation **John E. Heyke, Jr.,** president, The Brooklyn Union Gas Company; **D. E. Karn,** president, Consumers Power Company; **Wister H. Ligon,** president, Nashville Gas Company; **Chester L. May,** senior vice president, Lone Star Gas Company; **Robert W. Otto,** president, Laclede Gas Company; **F. T. Parks,** vice president, Public Service Company of Colorado; **J. C. Peterson,** president, The Manufacturers Light & Heat Company; **W. F. Rockwell, Jr.,** president, Rockwell Manufacturing Company; **J. Theodore Wolfe,** executive vice president, Baltimore Gas & Electric Company, and **D. K. Yorath,** general manager, Northwestern Utilities, Ltd.

Wadsworth Elected To Head PCGA

Guy W. Wadsworth Jr., president and general manager, Southern Counties Gas Company, was elected president of Pacific Coast Gas Association at the 62nd annual convention in Los Angeles.

The new PCGA president is marking his 34th year in the natural gas business. He was still a student at Occidental College, near Los Angeles, when he joined Southern Counties Gas Company on a part-time basis.

After receiving his degree in economics, Wadsworth left the gas company to become assistant financial advisor to the Republic af Haiti. Three years later, he returned to Southern Counties Gas Company as personnel manager.

In 1936, in addition to his work with Southern Counties, he was appointed personnel manager for the then Los Angeles Gas & Electric Company. In 1937, he became personnel manager for Southern California Gas Company.

Personnel testing methods he developed at this time have earned him national recognition. The Humm-Wadsworth personality evaluation test has been adopted by many industrial organizations.

Outgoing PCGA president E. D. Sherwin, left, congratulates new officers T. T. Arden, center, vice president, and Guy W. Wadsworth, Jr., right, president.

In 1941, Wadsworth was elected vice president and a director of Southern California Gas Company. Appointment as vice president, employee relations, for Southern Counties followed in 1942.

During World War II, Wadsworth served as deputy director of the Civilian Personnel Division in the General Staff Corps as a colonel and was awarded the Legion of Merit. He returned to Southern Counties and, in 1947, was elected vice president and assistant general manager and director, resigning his position with Southern California Gas Company. He was elected president and general manager of Southern Counties in May, 1954.

Elected vice president of PCGA was **T. T. Arden,** executive vice president of Robertshaw-Fulton Controls Company. Arden has just completed his term of office as president of Gas Appliance Manufacturers Association.

Harry McGann, auditor of division accounts, Pacific Gas and Electric Company was elected treasurer.

Retiring PCGA President **E. D. Sherwin,** also president, San Diego Gas and Electric Company, announced that 4 directors were elected to serve 2-year terms. They are **Grove Lawrence,** vice president, Southern California Gas Company; **H. L. Purdy,** executive vice president, British Columbia Electric Company; **J. D. Roberts,** vice president, Mountain Fuel Supply Company, and **C. H. Webber,** vice president, Tucson Gas, Electric Light and Power Company.

Myriad Of Awards Given At Meeting . . . .

F. M. Banks, AGA president, presents the AGA Distinguished Service Award to Frederic A. Hough, right.

Frederic A. Hough, Bechtel Corporation, formerly vice president, Southern Countries Gas Company, received the AGA Distinguished Service Award, for his outstanding contribution to the gas industry. The award, an engrossed certificate and a substantial financial recognition, is one of the highest honors bestowed on an individual in the gas industry. Hough, during 1952, instituted a program to render government regulation of the gas industry unnecessary. He served as chairman of the committee of 70 individuals, with widespread interests, that sought to revise codes for pressure piping for gas transmission and distribution systems. A a result of the adoption of Section 8, B31 Code, the fundamental principle of employing safeguards for potential hazards involved in the transmission and distribution of gas has been incorporated in Section 8 of the B31 Code wherever practicable.

PCGA Award Presentations. Gold medals were presented by Pacific Coast Gas Association to **M. J. Binckley,** Southern California Gas Company, and to **Dexter Stone,** Pacific Gas & Electric Company.

The annual Basford Trophy award was made to the PCGA manufacturers section and was accepted by **J. F. Ray,** General Controls Company.

A successful recessed wall heater research program was recognized with a committee award for the heating division of the PCGA manufacturers section.

The Forty-Niners, an "exclusive" PCGA group, inducted only one new member this year. He is **F. E. Wilson,** Pacific Gas & Electric Company.

George K. Bachmann, right, receives AGA's Distribution Achievement Award from Banks.

George K. Bachmann, general superintendent of meters, Public Service Electric & Gas Company (New Jersey), received the AGA Distribution Achievement Award, sponsored by American Meter Company. The award, a certificate of merit and a cash prize of $1000, is presented each year to the individual judged to have made the most outstanding contribution to the science and art of gas distribution in the past year or during the past five years. One of many contributions made to the gas industry by Bachmann is his responsibility for design, construction and operation of one of the most modern meter repair shops in this country, for Public Service. Many of the meter handling, labor saving and automatic features of this shop are the result of Bachmann's engineering ingenuity and ability.

Edward G. Boyer, right, is presented the Beal Award by AGA President Banks.

Edward G. Boyer, manager, gas department, Philadelphia Electric Company, was presented with the Beal Award, consisting of a gold medal and a cash award, as the author of the most outstanding technical paper given during the past year.

It was presented to him in recognition of the contribution to the industry made through his paper, "The Manufactured Gas Position in Present Day Operation."

This marked the third time Boyer has won this coveted prize, and it also marks the first time since the award was established in 1898 that it has gone to the same person a third time. He also won the Beal Award in 1947 and in 1949. The award was originated by the late W. R. Beal, and now is sponsored by Ernest R. Acker, president, Central Hudson Gas and Electric Corporation. It is the oldest established AGA award.

Awards

A continuing attraction at the convention was the needle-point vest worn by Milton W. Heath (center), president, Heath Survey Consultants, Inc. George A. McDonald (left), AGA, and Allyn C. Taylor, vice president, Reading division, UGI, direct attention to the pattern of blue flames broken by the orange leakage flames that are a matter of some interest to Heath.

Safety Awards Given 13 Gas Companies

Thirteen gas utility and pipe line companies received safety achievement awards from the AGA accident prevention committee for establishing outstanding records in employee accident prevention.

The award, an embossed bronze plaque, was presented to each company at the AGA convention.

Companies receiving the highest safety award given in the gas industry were: Baltimore Gas and Electric Company, Iowa-Illinois Gas and Electric Company, Central Illinois Light Company, Michigan Gas and Electric Company, Texas Eastern Transmission Corporation, Southern Natural Gas Company, Michigan Gas Storage Company, Consolidated Edison Company of New York, Citizens Gas and Coke Utility, Florida Power & Light Company, Superior (Wisconsin) Water, Light and Power Company, Spokane Gas & Fuel Company and Wilcox Trend Gathering System, Inc.

These companies had the lowest accident prevention frequency rate of all AGA-member companies in each of 13 divisions.

American Gas Association

Operating Section

Awards of Merit

"Having faithfully and constructively served the American Gas Industry; and made continuous and extensive contributions to further the interests and promote the welfare of the Industry and of the Public to which it is dedicated, this Certificate is presented in grateful acknowledgment by his Associates in the Operating Section."

J. Lee Adkins, The Peoples Gas Light and Coke Company
W. E. Albright, Philadelphia Gas Works division, U.G.I.
John F. Anthes, The Brooklyn Union Gas Company
R. O. Babcock, Consolidated Edison Company of New York
Charles W. Beggs, Public Service Electric & Gas Company of New Jersey
George T. Bentley, Michigan Consolidated Gas Company
Victor F. Bittner, The Peoples Gas Light and Coke Company
Hugh M. Blain, New Orleans Public Service, Inc.
E. G. Boyer, Philadelphia Electric Company
George P. Bunn, Phillips Petroleum Company
M. V. Burlingame, Natural Gas Pipeline Company of America
John W. Carroll, Philadelphia Electric Company
Warren E. Churchill, Boston Gas Company
J. H. Collins, Sr., New Orleans Public Service, Inc.
Bernard D. Connor, Boston Gas Company
A. H. Cramer, Michigan Consolidated Gas Company
P. T. Dashiell, United Engineers and Constructors, Inc.
Walter H. Davidson, Transcontinental Gas Pipe Line Corporation
I. B. Dick, Consolidated Edison Company of New York
Linn Edsall, Philadelphia Electric Company
A. C. Fieldner, U. S. Bureau of Mines
Percy W. Geldard, The Consumers' Gas Company of Toronto
John V. Goodman, Equitable Gas Company
Samuel Green, The Brooklyn Union Gas Company
E. W. Guernsey, Baltimore Gas and Electric Company
Frank J. Hall, Michigan Consolidated Gas Company
E. G. Hammerschmidt, The Peoples Gas Light and Coke Company
S. W. Horsfield, Long Island Lighting Company;
Charles L. Hulswit, Rockland Light and Power Company
J. T. Innis, Northern Natural Gas Company
W. H. Isaacs, The Peoples Gas Light and Coke Company
Edward W. Jahn, Baltimore Gas and Electric Company
H. C. Jones, New England Electric System
Theodore H. Kendall, South Jersey Gas Company
Richard E. Kruger, Rochester Gas and Electric Corporation
A. B. Lauderbaugh, The Manufacturers Light and Heat Company
Grove Lawrence, Southern California Gas Company
John M. McCaleb, Columbia Gas System Service Corporation
G. V. McGurl, Koppers Company, Inc.
Frederic Moshier, American Gas Association
Karl B. Nagler, The Peoples Gas Light and Coke Company
Henry W. Nicolson, Public Service Electric and Gas Company
E. P. Noppel, Ebasco Services, Inc.
John E. Overbeck, Columbia Gas System Service Corporation
S. G. Page, Duquesne Light Company
Frederick J. Pfluke, Rochester Gas and Electric Corporation
J. M. Pickford, Northern Indiana Public Service Company
E. L. Rawlins, Union Producing Company
Jean Y. Ray, Virginia Electric and Power Company
Thomas Lee Robey, American Gas Association
Paul W. Rogers, The Ohio Fuel Gas Company
Francis M. Rudman, Michigan Consolidated Gas Company
Arthur E. Sands, Carbide and Carbon Chemicals Company
W. J. Schreiner, The Cincinnati Gas and Electric Company
A. D. Simpson, Jr., United Gas Corporation
J. P. Stephens, The Cincinnati Gas and Electric Company
E. E. Stovall, Lone Star Gas Company
R. G. Strong, Natural Gas Pipeline Company of America
Charles W. Studt, Union Gas System, Inc.
Edmond L. Sweeney, Boston Gas Company
John G. Sweeney, The Brooklyn Union Gas Company
Paul R. Taylor, Stone and Webster Service Corporation
Sidney E. Trouard, New Orleans Public Service, Inc.
F. E. Vandaveer, The East Ohio Gas Company
J. A. Whelpley, The Cincinnati Gas and Electric Company
George S. Young, Columbia Gas System, Inc.
Edwin W. Zimmerman, Eastern Gas and Fuel Associates

Awards

AGA — Servel Awards. Cash awards and certificates were presented at the Los Angeles convention by **Duncan C. Menzies** (left), president, Servel, Inc., to winning gas utility companies in annual gas refrigerator sales contest sponsored jointly by AGA and Servel. Others in picture, left to right, are **Louis Ruthenburg,** Servel board chairman; **John C. Flanagan,** vice president and general manager, United Gas Corporation, who accepted for company's East Texas division; **Chester L. May,** senior vice president, Lone Star Gas Company, for Fort Worth, Texas, division; **M. A. Voorhees,** Monroe, Louisiana, division manager, United Gas Corporation; **C. M. Cullison,** president, Central Indiana Gas Company; **Richard S. Testut,** vice president and general manager, Servel home appliance sales division, and **M. L. Bird,** vice president, Lone Star Gas Company, who accepted for the general division, Dallas, Texas. A sixth winning company, Union Gas System, was not represented. Winning firms reported refrigerator sales increases ranging from 80 to 800 per cent over last year's contest period.

Home Service Achievement Award winners, left to right, are Irene Muntz, Rochester Gas & Electric Corporation; Ruth Marsh, Southern California Gas Company; Elizabeth Sweeney Herbert, McCall's Magazine; Shirely Fegert, Honolulu Gas Company; Mary Burton, Virginia Electric & Power Company; and Betty Jane Frahm, Montana-Dakota Utilities Company.

National Awards to Five Home Service Representatives. Individual accomplishments in the home service fields were accorded national recognition when five winners were presented with American Gas Association achievement awards, sponsored by *McCall's*. Cash prizes totaling $1000 and bronze plaques were awarded to members of home service organizations judged to have made the most effective contributions to the advancement of modern homemaking by promoting the use of gas and modern gas equipment. In Division A, home service departments of more than five representatives, a cash award of $200 and a plaque were given to **Miss Irene Muntz,** manager of the home service department of the Rochester Gas and Electric Corporation, for her description of a department organization reaching the widest number of customers in selling better living. **Miss Shirley Feret,** home service director, Honolulu, won the Division B award for departments of five or less, for an effective program directed toward assistance in the homemaking problems of working women. She received $200 and a plaque.Three cash prizes of $200 each and bronze plaques were given in Division C, where awards are available to individual members or a department head in the home service departments of three different companies. In this division, an award was given **Mrs. Mary Burton,** home economist in the San Diego Gas & Electric Company, for descriptions designed for new appliance purchasers on the care and use of their new equipment. **Mrs. Edith Collins,** home service advisor, Montana-Dakota Utilities Company, won the award for her account of home management classes for wives of airbase personnel given at the request of officers in charge of the air base. **Mrs. Ruth Marsh,** home service representative, Southern California Gas Company, won the third award for a school demonstration used throughout the Southern California system to acquaint students with "Blue Flame Magic."

Field Testing and Repair of Large Capacity, P-D Meters

FIG. 1.

Here's how New York State Electric and Gas Corporation does it . . .

● The expansion and growth of the natural gas industry has created a large demand for commercial, industrial and small community use. The quantities required are greater than the average and often run into millions of cubic feet per year. Large, positive displacement meters are employed for many of the installations. Meters are installed on medium or high pressure-lines as well as low pressure. This has brought about some changes in meter installation designing.

Errors in this type of metering have a rather obvious importance to the gas company. The experience of New York State Electric and Gas Corporation emphasized the need for a systematic test and inspection, beyond the normal procedures, so that these meters would be maintained at close-to-constant maximum efficiency and accuracy.

Fred Peters, supervisor, gas measurement, New York State Electric and Gas Corporation, described his company's procedure in the course of a presentation at American Gas Association's distribution, motor vehicles and corrosion conference. This article is based on Peters' presentation.

The most commonly used method to formulate such a periodic inspection is probably the "mileage basis," or the frequency in which the meter passes a given quantity of gas.

Two methods are available to accomplish the test and repair. One is changing the meter and testing and repairing in the meter laboratory. The other is to test and repair the meter in the field.

If the choice is field testing and repairing, then consideration must be given to these factors.

Location of the meter is important. If gas is to be used as the testing medium, the location must not create a hazardous condition when discharging gas to atmosphere. If air is to be used in testing, hazardous precautions are eliminated. The meter must be accessible for the operations. It must be equipped with a by-pass, to maintain service during the operation, and test connections.

It is more desirable to have the meter installed outside the consumer's building in a separate building. Fig. 1 and 2 are typical installations of this type. This cannot always be done and, therefore, if it is necessary to install the meter inside the consumer's buildings, adequate space near a window or door is preferred. Fig. 3 illustrates this type.

The testing equipment can be another meter connected in series that has been proved for accuracy to be used as the standard, or the critical or low-pressure flow prover may be employed.

Flow provers are more desirable for positive displacement diaphragm-type meters and for some sizes of the rotary-type displacement meter. The equipment is small, requires very little space and is easily attached for use. Fig. 4, 5 and 6 show the low-pressure flow prover connected for testing large-capacity, positive displacement meters.

The test is conducted in this manner: The meter is by-passed, the inlet and outlet valves are closed. The prover is attached to the test connection, which is located on the outlet side of meter ahead of the outlet valve. The operator selects orifice sizes so that with a specified inlet pressure, in inches of water column, at the prover, test rates of flow would approximately be 20, 50 and 100 per cent rated capacity of the meter at ½ in. differential pressure. Calculations are then made under existing conditions to determine the time in seconds for the passage of a given volume of gas through the prover. The test connection valve is

FIG. 2.

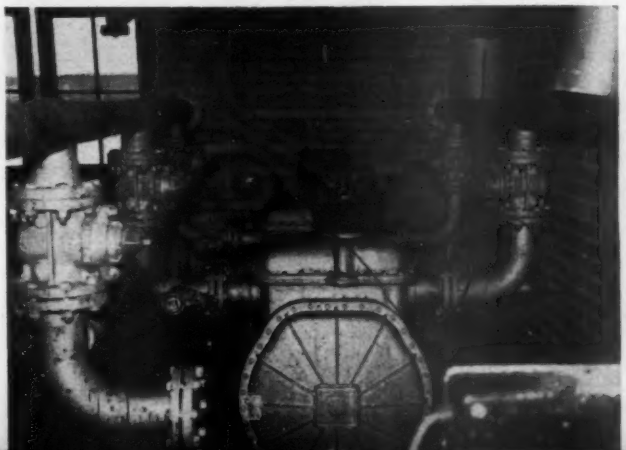
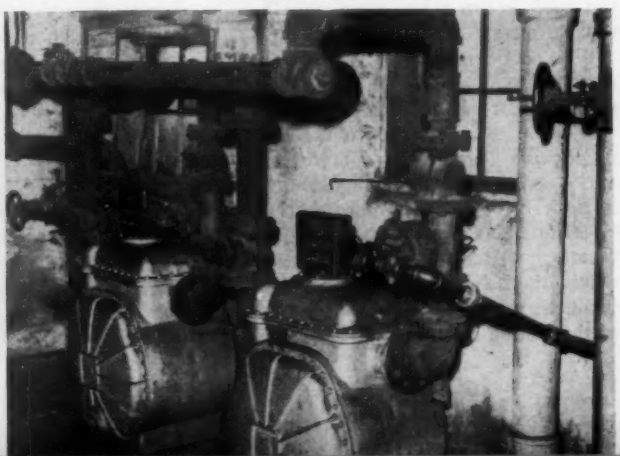


FIG. 3.



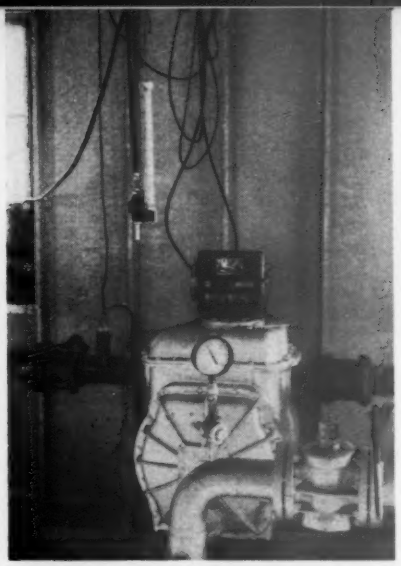


FIG. 4.

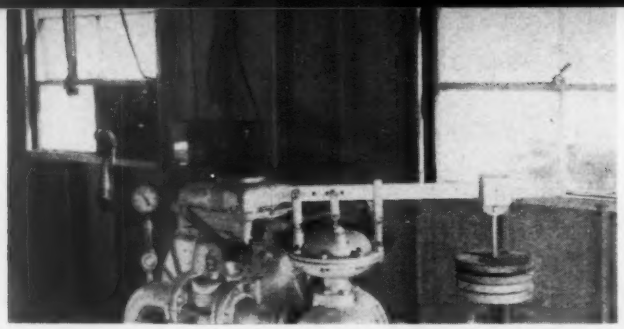


FIG. 5.

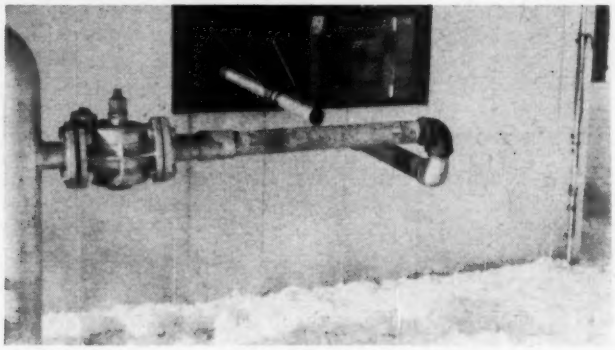


FIG. 6.

opened to relieve all pressure from the meter. Gas is then passed through the meter and prover at the specified pressure by opening and controlling the inlet valve ahead of the meter and maintaining the pressure until the desired number of cubic feet has passed through the meter, the revolutions of the test hand having been timed with a stop watch. The proof of the meter is then determined by the difference in the actual and the calculated time. The factors for the existing conditions are barometric pressure, gravity of the gas and gas temperatures.

When air is used as the testing medium, a blower is required and connections on the inlet of the meter should be provided. Fig. 7 and 8 show the meter being tested by air with a blower.

If the meter is found to be in error beyond the allowable limits, it must be opened for readjustment. Upon removing the adjustment hand-hole cover, it may reveal that the meter requires minor or even major repairs before adjustment can be made. In most cases, necessary repairs can be made, the meter adjusted and left in accurate operating condition.

From tests conducted with the low-pressure flow prover against the bell-type prover, the instrument is as accurate as the bell-type prover and large capacity, positive displacement meters can be more accurately tested throughout their entire range than most bell-type provers.

The economics of utilizing this method as compared to changing the meters must be considered. In some cases, the disadvantages make it impracticable. Some disadvantages are: It is not always possible to install meters in desirable locations where gas could be discharged to atmosphere without creating a hazardous condition, or where there is sufficient space to perform the work and test if air were used as the testing medium.

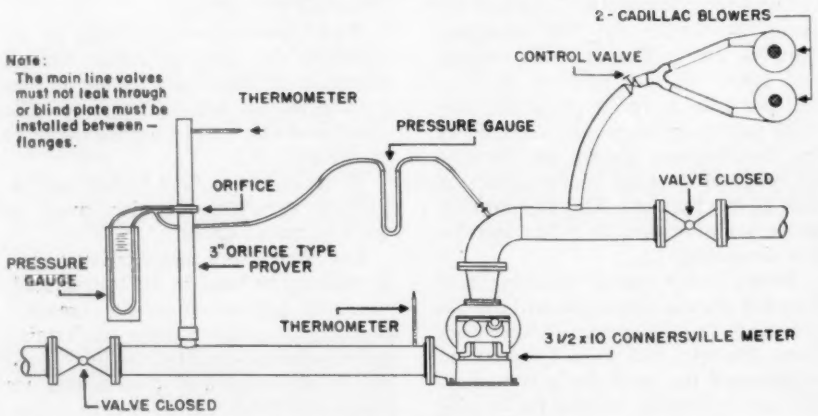


FIG. 7. Orifice type moves.

Installation costs are slightly higher, and trained personnel, additional equipment and transportation facilities are required.

Many companies, however, have centralized measurement departments that specialize in handling larger volumes of metering. They engineer all large installations and also provide maintenance.

Periodic field testing and inspection practically eliminates the possibility of meters becoming overloaded, which causes inaccuracies and wear. With proper approval of the flow prover from the state regulatory bodies, meters need not be changed until it becomes absolutely necessary. Large stocks of meters for change purposes are not necessary. The costly operation of changing is greatly reduced and more large installations are provided with bypasses to provide uninterrupted service while changing the meter even during the regular work week.

With proper thought and consideration given to each individual installation, with a periodic program for testing and repairing large capacity positive displacement meters in the field, Peters says he can assure his company of maximum efficiencies, high degree of accuracies, protection of revenue and maintenance of customers' good will. * * *

FIG. 8.

Service man (photo, left) loads his own tank at Waco, Texas', new butane service station without help of an attendant. Note LP gas meter at left.

Butane tanks (photo, right) can be installed with controls on either side of the truck, to avoid interference with spare tire rack or tool chest.

Lone Star Trucks Use LPG

Controls for butane fuel tanks protrude from opening made in truck bed. On this truck, loading and controls are on the right. Truck in photo No. 1 shows controls and fueling point on left side.

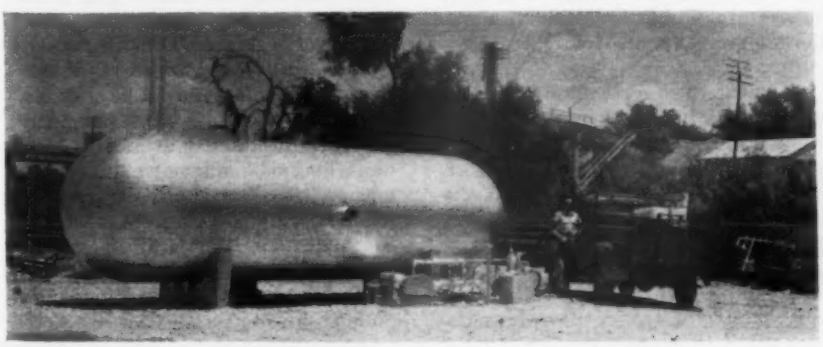
First 6500-gal butane storage tank for truck fuel was installed in Lone Star Gas' Waco distribution area. Still being completed, tank will have crash rails added before full-scale program is in effect.

● Fifteen service trucks included in a fuel conversion program in Lone Star Gas Company's Waco, Texas, distribution district were operating on LP gas in July, and the balance of the service fleet was converted in August.

The plan to operate the trucks on LP gas fuel with a combination carburetor, which will allow the same truck to operate on gasoline with the mere flip of a switch on the dash board, stems from a number of reasons, according to Stargas Department Manager Field Foster.

"Lone Star is producing large quantities of LP gas that is better engine fuel than the finest gasoline we can buy," he said. "Furthermore, we can supply this fuel at much lower price than gasoline."

At Waco, the company has installed a 6500-gal tank as a service station in the district warehouse yard. It is equipped with an LP gas meter so drivers can fill their truck tanks without an attendant since calculations have been eliminated.



The service station has a pumping unit that fills the fuel tanks at a rate of 30 gpm.

Fuel tanks, designed by the Stargas department, are installed in the bed of the pickup back of the cab and hold about 28 gal, which is more than enough for a day's work. The tanks are built to fit any truck and are reversible so controls, which are located at one end, can be faced on either side to avoid conflicting with tire carriers, fire extinguishers, or tool boxes. Gage, filling connection, etc., are installed to protrude through an opening cut in the side panel of the truck bed, making them accessible from the ground without interfering with appliances or other loads the trucks may be carrying.

Installations were made by Grover Bates, mechanic for the Waco district. John Bartley and Deck Hulcy, Jr. supervised the first two installations and trained Bates for the conversion work.

"Waco district will continue the conversion of additional trucks until all equipment that is practical to convert is operating on our own LP gas fuel," Foster said.

Preparations are also being made to convert 53 pieces of equipment in the Ranger, Texas, area of the transmission division, including trucks, cars, and welding machines. LP gas service stations will be installed at Ranger and Gordon, Texas, to take care of this equipment. * * *

More Gas for Midwest?

New transmission company—Midwestern Gas—asks FPC approval on plans for $98,000,000 system with 400,000,000 cu ft per day capacity

Dean Hale
Southwestern Editor

MORE NATURAL GAS SERVICE FOR THE upper North Central region of the U. S. is being proposed. And if companion applications filed in October with the FPC by Tennessee Gas Transmission Company and a new associated firm, Midwestern Gas Transmission Company, are given a green light, construction of the much talked about Trans Canada Pipe Line may also get into high gear.

The two firms have filed applications for construction of over 2000 miles of new pipe line, 14 new or enlarged compressor stations, and at a cost of some $141,000,000, all of which are proposed for completion in 1956 if approval is granted in time.

Midwestern is proposing a 1112-mile, $98,000,000 Tennessee to Minnesota gas line to serve a market area comprised principally of Minnesota, Wisconsin, western Michigan, and eastern North Dakota, which it terms "long-neglected" and without natural gas service in many of the areas.

Midwestern has also asked the FPC for authority to import 200,000,000 cu ft of gas per day from Canada, to be delivered into the northern end of its pipe line system at the international boundary near Emerson, Manitoba, by Trans Canada Pipe Lines, Ltd.

Contracts for purchase of the Canadian gas were announced in August. Terms of the contract also call for the purchase of an additional 200,000,000 cu ft daily when and if available.

Midwestern's board chairman is Gardiner Symonds, who is also president of Tennessee Gas, and president of Midwestern is N. W. Freeman, who is also senior vice president of Tennessee Gas. The company is headquartered in Houston.

Three applications were filed by Tennessee Gas, two of them involving system expansions costing approximately $43,000,000 and increasing delivery capacity of its pipe line system to 2 billion cu ft daily and 2.5 billion cu ft daily on peak days, with the third application asking authority to deliver up to 86,755,000 cu ft daily to Trans Canada Pipe Lines at its eastern end.

In one application, Tennessee is requesting permission to construct some $18,600,000 in facilities that would enable it to sell Midwestern some 200,000,000 cu ft daily — half of its requirements. Delivery would be made into the south end of the Midwestern line near Portland, Tennessee, where Midwestern would tie in with Tennessee's multiple line gas transmission system from the Gulf Coast to New England.

The facilities proposed would include five new compressor stations in Texas, Louisiana, Mississippi, and Tennessee, additions to four existing stations, and about 100 miles of gathering lines in Texas and Louisiana.

A second application calls for a $24,300,000 system expansion in Kentucky, Ohio, and Pennsylvania, including 162 miles of loop lines, two new compressor stations in Tennessee and Massachusetts, and additions to four other compressor stations.

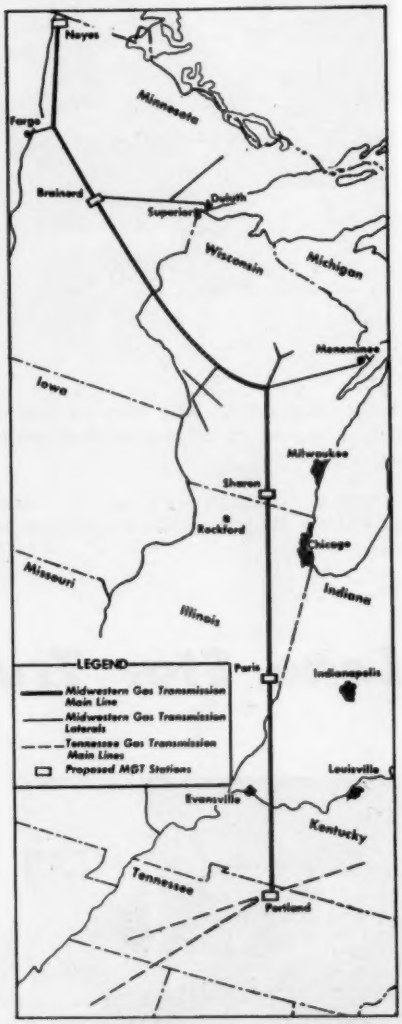
These facilities will be required to meet expanding needs of Tennessee's existing customers, estimated at 108,978,000 additional cu ft daily for the 1956-57 heating season, says the application.

The third application, to deliver 86,755,000 cu ft of gas per day to Trans Canada at the International Boundary near Niagara Falls, on a short term basis, if approved would help the Canadian line in its program to serve and develop markets in the area between Toronto and Montreal prior to completion of the all-Canadian pipe line.

Trans Canada has a line, completed in 1954, from Niagara Falls to Toronto, through which Toronto now receives gas. It has a contract with Quebec Natural Gas Corporation to supply the requirements of Montreal and environs.

Midwestern's application describes much of its proposed market area as "long-neglected", and without natural gas service despite strenuous efforts exerted for many years by public officials and local gas industry leaders. Many distribution companies have signed letters agreeing to purchase gas from Midwestern.

Requests for service have been received from distribution companies and industrial plants in other parts of the area. While many of these potential customers now have natural gas service, their long lists of unaccepted applications from the public for service prove their present supplies are inadequate, it was pointed out.



Map shows proposed route of MGT 1112-mile main line.

Midwestern says the entire area accessible to its pipe line will benefit from service by a new natural gas pipe line system whose management has an established reputation for aggressive merchandising of natural gas, it was stated.

Delivery capacity of the Midwestern Gas line, to cross Minnesota, Wisconsin, Illinois, Indiana, Kentucky and Tennessee, would be 400,000,000 cu ft per day. In addition to the 1112-mile main line, 648 miles of main line extension of 3 to 18-in. diameter are planned, plus five compressor stations located near Portland, Tennessee; Paris, Illinois; Sharon, Wisconsin; Brainerd, Minnesota, and Noyes, Minnesota.

Construction would start at once after FPC authorization, with completion and start of service estimated at November 1, 1956. Customer firms to which Midwestern Gas proposes service, and maximum daily quantities, include:

City of Ada, Minnesota, 994,000 cu ft; **Central Wisconsin Gas Company** at Sparta and Tomah, Wisconsin, 5,988,000; **City Gas Company,** Antigo, Wisconsin, 4,998,000; **Consumers Gas Company,** Detroit Lakes, Minnesota, 3,117,000; **City of Duluth,** Minnesota, 37,106,000.

Iron Ranges Natural Gas Company, in these Minnesota towns: Aitken, Aurora, Biwabik, Bovey, Buhl, Calumet, Chisholm, Coleraine, Cooley, Crosby, Cromwell, Deerwood, Eveleth, Gilbert, Grand Rapids, Hibbing, Hoyt Lakes, Ironton, Keewatin, Kinney, Marble, McGregor, McKinley, Mountain Iron, Nashwauk, Proctor, Scanlon, Silver Bay, Taconite, and Virginia, 66,661,000 cu ft.

Merrill Gas Company, Merrill, Wisconsin, 2,900,000 cu ft; **Minnesota-Valley Natural Gas Company,** Little Falls and Staples, Minnesota, 5,105,000; **Montana-Dakota Utilities Company,** Crookston, Minnesota, 3,164,000.

Northern States Power Company, 117,707,000 cu ft, at the Minnesota towns of Bayport, Birchwood, Brainerd, East Grand Forks, Forest Lake, Lake Elmo, Mahtomedi, Moorhead, Newport, Oak Park, St. Cloud, St. Paul Park, Sartell, Sauk Rapids, Stillwater, Sunrise Park, Waite Park, White Bear Lake, Willernie, and Winona; the North Dakota towns of Fargo, Grand Forks, and South West Fargo; and the Wisconsin towns of Altoona, Chippewa Falls, Eau Claire, Hudson-North Hudson, La Crosse, Onalaska, and Viroqua.

Northwest Gas and Power Company, Cloquet, Minnesota, 3,366,000 cu ft; **Peoples Gas Company,** Marshfield, Wisconsin, 3,714,000; towns of Shawano and Clintonville, Wisconsin, 3,634,000; **Superior Water, Light and Power Company,** Superior, Wisconsin, 12,631,000; **City of Wadena,** Minnesota, 1,805,000.

Wisconsin Fuel and Light Company, 10,357,000 at the towns of Brokaw, Mosinee, Rothschild, Schofield and Wausau, Wisconsin; **Wisconsin Hydro Electric Company,** Menomonie, Wisconsin, 2,272,000; **Wisconsin Public Service Corporation,** 24,943,000 at the towns of Marinette, Oconto, Peshtigo, Park Ridge, Stevens Point and Whiting, Wisconsin, and town of Menominee, Michigan.

Wisconsin Rapids Gas and Electric Company, 4,740,000 at the towns of Biron, Nekoosa, Port Edwards and Wisconsin Rapids, Wisconsin. * * *

Cleveland "80" uses long reach, accuracy, teams up with trencher on tough 10-mile job

ON A 10-INCH CAST IRON JOB in Loogootee, Ind. this winter, the contractor matched his Cleveland trencher and Cleveland Model 80 side crane against 10 miles of really rough work. He reports his decision paid off well in both time and money saved.

Cutting the 10-mile line through hilly terrain alongside a curving road, his Cleveland "140" maintained a fast, dependable pace overcoming frost and plenty of Indiana sandstone. Despite the tough digging in close quarters, the "140" left a clean trench ready for pipelaying.

The one-man-operated "80" kept the pipelaying operation up close, usually only a couple of joints behind the trencher. It picked up the pipe strung along the opposite side of the road, turned on its maneuverable full crawlers and accurately positioned the pipe for fast, easy installation. The Model 80's large, easy-acting hydraulic clutches and smooth handling brakes and boom hoist which placed and held pipe exactly to required positions also are responsible for its outstanding speed and accuracy when employed as a backfiller.

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FPC REPORT

Indirect Interstate Gas Sales Subject to FPC

FPC has issued two opinions in which it held that in light of decisions by the U. S. Supreme Court, it has jurisdiction over sales made by independent producers before the completion of production and gathering of natural gas.

In its actions, the Commission affirmed a decision by one of its presiding examiners based on this principle, but reversed a ruling by another examiner dismissing a series of independent producer applications for want of jurisdiction.

The FPC upheld a chief presiding examiner who last April denied petitions by three independent producers requesting FPC orders declaring that their sales are not subject to regulation under the Natural Gas Act. The companies are Deep South Oil Company of Texas, Beaumont, Texas, Humble Oil & Refining Company, Houston, Texas, and Shell Oil Company, New York City.

The decision that the Commission reversed in the case of Dixie Pipe Line Company, Dallas, Texas, was filed last June by FPC and dismissed for want of jurisdiction applications by 20 producers requesting certificates for natural gas sales. Findings were based upon the fact that the sales are made at or near the wellhead prior to gathering and processing. The FPC held that this decision contains "basic error of law. . . ." As a result of the Commission's ruling, gas that 19 of these producers proposed to sell for ultimate resale to Transcontinental Gas Pipe Line Corporation, Houston, Texas, will continue to be sold to Southern Natural Gas Company, Birmingham, Alabama, under existing contracts.

In its opinion (No. 284) in the Deep South case, the Commission agreed with the presiding examiner that each of the three companies is engaged in the sale in interstate commerce of natural gas for resale, and is, therefore, a natural-gas company within the meaning of the Natural Gas Act. The companies' sales are made from various producing fields in Texas, and the gas moves through processing plants after the sales are made.

The companies contended that their sales are not in interstate commerce, and that even if they were they would be exempt under Section 1(b) of the Natural Gas Act. (Section 1(b) says, among other things, that the provisions of the Act "shall not apply . . . to the production or gathering of natural gas.") The Commission, however, found that the sales of the three companies are sales in interstate commerce for resale for ultimate public consumption and are not with the exclusionary provisions of Section 1(b). The FPC pointed out that, as shown in the examiner's decision, there is an uninterrupted flow of natural gas from the wells of the companies across state lines.

These three companies also claimed that their sales are sales of "casinghead gas," which is not the same product as the surplus residue gas, which, they maintained, is the "natural gas unmixed" to which Congress referred in its definition of natural gas in the Natural Gas Act. The FPC declared that there is "no merit" to this claim, and cited court decisions that confirmed its conclusion.

After pointing out that processing does not interrupt the continuous movement in interstate commerce, the FPC said that even if only a portion of the gas from the companies' wells crosses the state line as an integral part of a commingled mass, "it is immaterial, for it has been said that the smallness of the operation in interstate commerce does not take it out of the sphere of Federal power."

The Commission said that it wanted to make it clear "that our affirmance of the presiding examiner's decision is not predicated upon the existence or absence of state regulation with respect to wellhead prices. The degree of state regulation and state opposition to Federal control is not determinative of our jurisdiction over the sales in question."

In overruling the examiner in the Dixie Pipe Line Company case (Opinion No. 285), the FPC said that for the reasons set forth in the Deep South opinion, the proposed sales by the producers are sales in interstate commerce for resale and thus subject to Commission jurisdiction.

The other application dismissed by the examiner was by Humble Oil & Refining Company, Houston, proposing to continue the sale to Southern of only that natural gas produced from oil and gas leases owned by it in the Gwinville field, in Mississippi. Part of the gas that Humble sells to Southern is produced from the same units involved in the applications of the producers that proposed to sell to The Gwin Company of Dallas. The undivided parts of working interests owned by the 19 producers proposing sales to Gwin have been pooled into various field production units, the majority of which are operated by Humble. Production of the units is sold by the operators to Southern, which has been purchasing substantially all of the gas produced by the operators in the Gwinville field.

In denying the applications for abandonment, the FPC declared that a shift of gas supplies "from one segment of the public to another achieved only through increased costs to the pipe line companies and additional expenditures for the rendition of such service cannot be said to serve the public interest." The FPC said that in view of its denial of the abandonment application, it was unnecessary to consider the certificate requests since the entire interrelated Dixie-Gwin project "must fail for lack of available gas supply."

Transcontinental Receives Final Okay for Pipe Line

Federal Power Commission's August 9 decision authorizing Transcontinental Gas Pipe Line Corporation, Houston, Texas, to construct an estimated $3,426,000 of natural gas facilities has become effective as the final decision and order of the FPC.

Facilities to be constructed by Transcontinental consist of approximately 27 miles of loop lines in Louisiana, Georgia, North Carolina, Virginia and Maryland and will be used to transport an additional 10,000,000 cu ft per day for Sun Oil Company, on a firm basis. The gas is to be delivered to Sun's Marcus Hook, Pennsylvania, refinery.

Texas Eastern Directed to Supply UGI Divisions

A decision has been filed by a presiding examiner directing Texas Eastern Transmission Company to supply gas to United Gas Improvement Company for use in two of the company's divisions.

The decision, subject to Commission review, orders Texas Eastern to supply UGI with a maximum of 3500 Mcf per day in the 1955-56 winter season with total deliveries to be reduced to 712 Mcf daily in the 1957-58 winter. In the meantime, Texas Eastern will be permitted to deliver to UGI any peak day gas allocated to other customers which those customers are unable to take.

A decision on May 18 allocated 15,598 Mcf from Texas Eastern's system to 19 new or existing customers. Decision was reserved on allocation of remaining 712 Mcf of Texas Eastern's total available unallocated volumes of 16,310 Mcf per day.

UGI will use the Texas Eastern gas to convert the Lebanon district of the Harrisburg division from its present mixed gas service to straight natural gas and to supplement gas to be delivered by Manufacturers Light and Heat Company to UGI's Reading division, now being served with straight natural gas. ★ ★ ★

Gas Company Liable For Explosion Only on Definite Proof of Negligence

By Leo T. Parker
Attorney at Law

Recently a higher court rendered an important decision to the effect that a gas company will not be held liable for a gas explosion without definite proof of negligence, irrespective of allegations made by an owner whose private property was destroyed.

For illustration, in the new case of Feder vs Illinois Power Company, 122 N. E. (2d) 53, these facts were presented the court: Gas escaped from a corporation's distribution system and passed through or along a property owner's defective sewer pipes. An explosion resulted that destroyed the private property whose owner sued the gas company for damages. During the trial the property owner argued that the gas company was liable because it was negligent (1) in using pipe more than 40 years old without inspections by men specially trained therefor more often than once a year, (2) in failing to maintain regulators in the 12-in. main for a distance of seven miles, and (3) in providing no way to shut off gas after a break or leak in the main is discovered.

As the property owner failed to prove that the explosion resulted from these alleged negligent acts, the higher court refused to hold the gas corporation liable, and said:

"We agree with the contentions of the defendant. While it is common knowledge that the elements will corrode a metal pipe, there is no evidence of the length of time necessary for such corrosion to render a pipe dangerous. We find no evidence that defendants (gas corporation) pipes were in fact in such corroded and dangerous condition. There is no evidence which tells the court how frequently inspections of the gas line should be made nor what type of inspection would be required to discover a possible weakness in the underground pipe. Nor can we find any evidence which would demonstrate that a lack of regulators or shut off valves was an unusual condition in the industry and therefore constituted negligence. No showing was made that plaintiff's (property owner's) own sewer or gas piping and connection were in proper repair."

Consumer's Negligence Loses Suit

"What legal rule have you developed, if any, for determining whether or not a gas company is liable in damages for a gas explosion? If a gas consumer knows that gas is leaking into his home and notifies the gas company, what are the legal duties of both the gas company and the consumer? What negligence of a consumer throws the fault for an explosion of gas on him?" Those questions are from another gas company executive.

It is well established law that if a gas explosion results from negligence of a gas company's officials or employees, the company is liable in damages. A view of late and leading higher court decisions discloses that: (1) a gas company generally is guilty of legal negligence and liable if a leak in *its own pipes, mains and appliances* causes injuries to persons or property whether or not the company's officials or employees had actual notice of such leak or leaks. This is so because a gas company is bound by law to keep its own system in reasonably good condition and to have proper inspections to discover leaks and dangerous defects; (2) a gas company is guilty of negligence if a leak in a customer's pipes or appliances causes injury to persons or property, provided the company has sufficient notice of such leak or leaks and having such notice, either negligently inspects or negligently repairs the pipes or appliances or agrees to inspect and repair and then fails to do so, or refuses to inspect and repair knowing a dangerous condition exists, and with such knowledge fails to shut off its gas until the property owner and consumer can have his pipes and appliances properly repaired.

Also, according to a late higher court decision where a gas company is notified that gas is leaking, it is the company's duty immediately to inspect the premises, including the owner's pipes, fittings and appliances and if the leak is in them to shut off the gas until proper repairs may be made.

On the other hand, a leading higher court has held that a gas consumer is contributorily negligent and not entitled to damages if he knows that his pipes or appliances are leaking and he fails to shut off the gas immediately.

In Jelf vs Cottonwood Falls Gas Company, Inc., 160 Pac. (2d) 270, it was shown that the telephone girl at the office of a gas company was notified by a property owner that he smelled gas in his home. Also, a serviceman for the gas company was notified by the consumer and he said that he would investigate the matter. Also, another employee of the gas company was notified by the owner that there must be a gas leakage in his house. After these various notifications, employees of the gas company examined the pipes but failed to locate the leak. One month later an explosion occurred that caused a fire, and the household goods were totally destroyed; there were other injuries for which the owner sued the gas company.

During the suit, the owner testified that the explosion was caused by the carelessness and negligence of the gas company's employees who had a gas meter attached to the residence, and the pipes and laterals leading thereto had rusted and deteriorated. Also, the owner alleged that the company negligently failed to repair and stop the leaks after he notified the employees of defects, and that gas was leaking and escaping into his residence.

The lower court held the gas company liable, but the higher court reversed the verdict, and said:

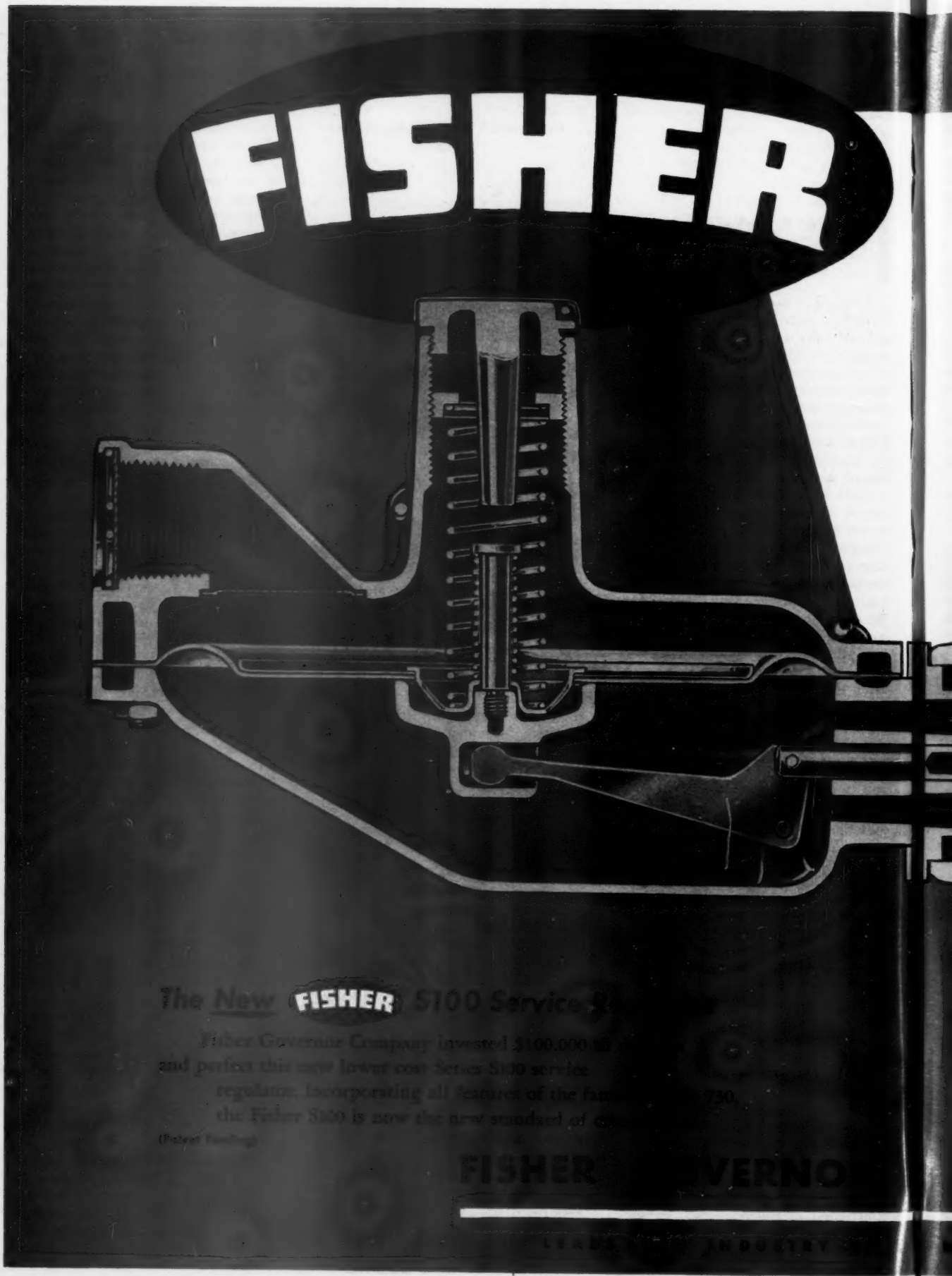
"If a person knows that gas is escaping into his house from the main of a gas company, it is his duty to take suitable precautions for his safety, and if he does not do so, and damage results, he will be guilty of contributory negligence and cannot recover."

For comparison, see Gas Works Company, 7 Atl. (2d) 326. Here, it was shown that the owner noticed the odor of gas. He made an investigation and notified the gas company to make an inspection because his "hot water heater was leaking."

The gas company officials failed to send a repairman although the property owner again notified the company. Soon afterward, the property owner attempted to light the water heater. An explosion occurred that seriously injured the owner, who sued the gas company for heavy damages. He contended that the company's officials were negligent in failing to send a serviceman to inspect the basement.

The higher court refused to hold the gas company liable. The reason the court refused was because the water heater was owned by the property owner and he was contributorily negligent in failing at once to make needed repairs. ★ ★ ★

FEATURE
American Gas Journal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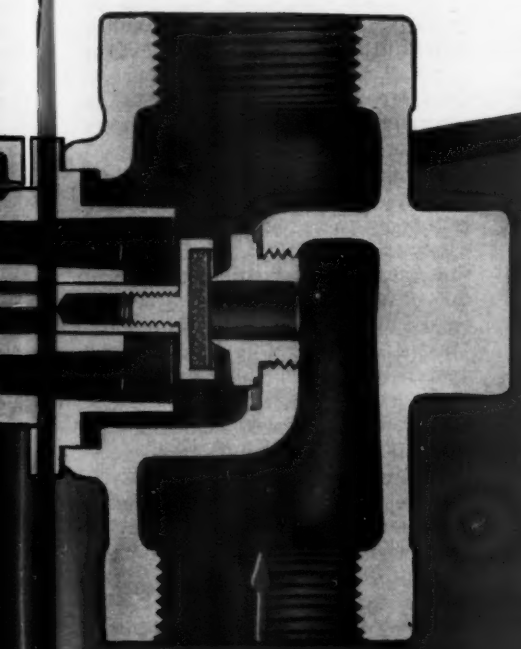

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- **PERFORMANCE**
  Turbo booster valve develops capacity far in excess of industry requirements.
- **ECONOMY**
  Lower unit cost.
- **LIGHTWEIGHT**
  Shipping costs reduced 50%.
- **IMPROVED AIRCRAFT TYPE FLANGE UNION**
  Permits free 360° rotation of diaphragm assembly. Only a socket or Crescent wrench is necessary to replace valve disc or service regulator.

COMPANY Marshalltown, Iowa

RESEARCH FOR BETTER GAS PRESSURE CONTROL

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Our 75th ANNIVERSARY

Gas Industry NEWS

Home Study Course Available In Safety Engineering

A new home study course in industrial safety engineering has been added to the curriculum of International Correspondence Schools, Scranton, Pa.

With the increased use of automatic machinery and processes, management has become increasingly aware of the safety problem. The new course is an engineering approach to the solution and study of this problem.

Prepared especially for home study, the industrial safety engineering course is designed to help industrial supervisors in charge of safety, industrial engineers who desire safety training, safety representatives of labor departments, and those whose responsibilities would call for a knowledge of safety practices in industry. It is comprised of 41 lessons requiring an estimated average study time of 650 hours.

The new course has been made available on a selective plan which permits employers to select only those instructional units which meet an immediate and specific need.

Appalachian Course Sets Attendance Record

The largest attendance in the 15 years of the Appalachian Gas Measurement Short Course was recorded as representatives of the oil, gas, and chemical industries met at West Virginia University, during late-August.

Eighty-two classes and 3 open forums were conducted. Over 40 manufacturing suppliers displayed the latest developments in the field of measurement and regulation.

Highlighting the opening session were addresses by D. A. Hulcy, president, Lone Star Gas Company, and Thomas Weymouth, dean of orifice meter engineers.

A. M. Hutchison, Ohio Fuel Gas Company, chairman of the general committee, officially opened the Short Course.

The address of welcome to West Virginia University was extended to the gas engineers by G. R. Spindler, dean, School of Mines, and A. Hale Watkins, president, West Virginia Oil and Natural Gas Association, responded.

H. B. McNichols, Columbia Gas System Corporation, was appointed program chairman of the 1956 Short Course, and Howard S. Bean, National Bureau of Standards, will assume the chairmanship of the general committee.

James F. Oates, Jr., (right) chairman and chief executive officer of The Peoples Gas Light and Coke Company, congratulates Edward J. Green on being the customer in whose home Peoples Gas installed its one millionth meter.

Peoples Sets Millionth Meter In Chicago

Peoples Gas Light and Coke Company installed its one millionth meter, during late-August, in a new all-gas home.

In recognition of this event, the new owners were presented with 4 automatic gas appliances: range and refrigerator by Peoples Gas, clothes dryer by Geo. D. Roper Corporation, and an incinerator by Cribben and Sexton Company.

James F. Oates, Jr., chairman and chief executive officer of Peoples Gas, greeted the new owners at their home when the meter was installed and formally presented them with the appliances.

The inscription on a bronze plate attached to the face of the meter reads:

"This gas meter represents the 1,000,000th meter installation ready to serve Chicago's public. It marks another milestone in the Company's 100-year history of service."

California Storage Project Now Moving Ahead

Plans of Pacific Lighting Gas Supply Company for a new underground gas storage reservoir took an important step forward recently with approval by the Montebello City Council for a special use permit to construct a compressor station. Project recently was approved by the California Public Utilities Commission.

Investment in the proposed plant and pipelines would amount to $4,000,000, with another $6,000,000 in stored gas.

Utility Peak-Load Gas Study Characteristics and Costs

Development of processes for production of peak-load substitutes for natural gas has been one of the major problems of the utility gas industry. Propane-air and butane-air have proved useful but are costly, so the more economical high-Btu oil gas processes have been used for production of increasingly larger increments of peak and winter base loads.

The making of a high-Btu oil gas as a substitute for natural gas is a rigorous problem, however, in that natural gas is largely methane, while in high-Btu oil gas processes the complete range of paraffins, olefins, and aromatics, from methane, ethylene, and benzene up to heavy tars and carbon, are produced. The tars and carbon are removed in the condensing system or left behind in the set, but the remainder of the galaxy of hydrocarbons is carried into the raw gas stream, where the olefins (illuminants) are particularly objectionable because they tend toward yellow-tipping and soot deposition during combustion.

Simulated and actual high-Btu oil gases, with and without purification, were autohydrogenated by use of selected hydrogenation catalysts in three laboratory fixed-bed reactors, a laboratory fluid-bed reactor, and a pilot plant fixed-bed reactor.

Preliminary tests with methane-ethylene-hydrogen mixtures and selected oil gases, and various nickel catalysts, in the 450 to 750 F temperature range, indicated that hydrogenation of olefins to methane was accompanied by excessive carbon formation. The study was therefore directed to the conversion of olefins and diolefins to the equivalent paraffins.

The effects of reaction temperatures from 200 to 500 F and of space velocities from 200 to 1000 scf cf catalyst-hr were fully defined for impregnated nickel-kieselguhr catalysts with nickel concentrations of 2, 5 and 10-weight per cent. In addition, 12 selected iron, cobalt, molybdenum and platinum catalysts were studied over a more limited range of operating conditions. The influence of the hydrogen/olefin ratio of the feed gas and of small amounts of air, carbon monoxide, thiophene, mercaptans, and butadiene, on the activity of a 5-weight per cent nickel-kieselguhr catalyst was also investigated.

Extended tests, including continuous runs of as long as 93 hr, were made with low sulfur content oil gases in a three-stage fixed-bed reactor, and methods for catalyst regeneration were developed. Reactor design principles were studied, and use of a fluid-bed system was recommended after the de-

velopment and testing of a 5-weight per cent nickel-kieselguhr fluid-bed catalyst.

It was found that fixed- and fluid-bed 5-weight per cent nickel-kieselguhr catalysts could be fully regenerated, after repeated sulfur poisoning, by burnoff with air and oxygen. Low-purity process hydrogen was shown to be suitable for catalyst activation. The activation step, consisting of exposure of the catalyst to hydrogen at 700 to 850 F for periods to three hours, was shown to be essential in the use of nickel catalysts for the auto-hydrogenation reaction.

The removal of thiophene and carbon disulfide by oil scrubbing was studied to determine the operating conditions necessary for the reduction of their combined concentrations in typical high-Btu oil gases to less than 0.2 gr S/ccf. Commercial processes for the removal of hydrogen sulfide and mercaptans from hydrocarbon streams were also reviewed.

The substitutabilities for high-methane natural gas of typical high-Btu oil gases in the 900 to 1400 Btu/scf true oil gas heating value range, after autohydrogenation under conditions resulting in maximum olefin-diolefin conversion, were determined at rated heat inputs on five critical burners, and these results compared with the substitutabilities of the original oil gases.

Details of the study, sponsored by the American Gas Association at the Institute of Gas Technology have been published in IGT research bulletin No. 25, "Autohydrogenation of Oil Gases," by H. A. Dirksen, H. R. Linden, and E. S. Pettyjohn.

Boston Consolidated Now Boston Gas Company

Boston Consolidated Gas Company officially became Boston Gas Company on September 1, dropping from its company name "Consolidated," which described the way in which a number of district gas companies were united 50 years ago to form the present company.

The word "Consolidated" originally was made a part of the company's name when 8 gas companies then serving the Boston area were merged by an act of the legislature into one company in 1905. Up to that time, Greater Boston was served by more than a dozen district gas companies.

The change of name focuses attention on the growth of the company. The original 8 companies supplied gas to 97,500 customers. Boston Gas now serves more than 325,000 customers, including 6,400 electric users in Charlestown. The original companies had 786 miles of street mains, Boston Gas now has over 2,600.

R. I. Snyder

Gordon G. Dye

Southern California Gas Shifts Top Operating Posts

Major executive changes in Southern California Gas Company have been revealed following an announcement by Executive Vice President H. L. Masser that he will retire early in 1956.

H. L. Masser

R. I. Snyder, manager of distribution, is now assistant vice president. In this capacity, Snyder will act as a general assistant to Masser.

It was also announced that Gordon G. Dye, assistant manager of distribution, has assumed Snyder's duties as manager of distribution.

The Southern California engineering department is now under the general supervision of vice president Grove Lawrence, who will continue to direct the gas supply department.

Snyder served as an engineer in the American Gas Association Laboratory, Cleveland, Ohio, for two years. He joined the California company in 1935 as an assistant research engineer in the appliance testing laboratory.

He served as a personnel department assistant from 1939 to 1941, when he became division engineer. In 1944, he was named superintendent for San Joaquin Valley division and four years later became manager of the purchasing and stores department.

Snyder was assistant manager of distribution from 1951 to 1953, when he became manager of distribution.

Dye, now manager of distribution, has completed 31 years of service with the gas company, dating back to his first job as a clerk at the Santa Fe Gas Works in 1923.

Following his service in the gas manufacturing plant at Los Angeles, Dye served as a draftsman and estimator in the civil engineering and the gas measurement departments.

In 1936, he became office engineer for the general superintendent of distribution and later was named office engineer in the general agent's department.

Dye became meter shop engineer in 1942, and two years later assumed duties of supervisor of distribution standards, training and meter shop. In 1951, he was appointed supervising engineer for the distribution department in Los Angeles and was named division manager in 1953. He became assistant manager of distribution early this year.

Northern Indiana PSC Wins Two Awards

Northern Indiana Public Service Company received two national utility publication awards recently.

The award-winning publications were the employee magazine *The NIPSCO Picture*, and the company's Annual Report to Stockholders for 1954.

The contest is said to be the oldest competition in the utility publication and advertising field. This year more than 2,060 entries were submitted by utility companies.

Fluor Corp. Honored for Labor Relations

For outstanding contributions to industrial peace, Fluor Corporation has been awarded the Father Coogan Labor-Management Award. The honor is given annually to an industrial firm and to affiliated labor groups which have achieved signal labor-management relationships throughout the year.

Presentation of the award to J. R. Fluor, vice president of Fluor Corporation, was made by James Francis Cardinal McIntyre at the ninth annual Catholic Labor Institute Labor Day breakfast. Representatives of labor, management, the church and government leaders participated in the event.

Edward T. Shedlock, Congress of Industrial Organizations Utilities Workers Union and president of the Catholic Labor Institute, said the awards were made to Fluor for "practical application of the kind of cooperation that enables unions to achieve the standards of working conditions their members enjoy, and to permit the employer to complete his job and attain fruitful results for his company."

In accepting the award, Flour declared that his firm's formula for achieving a worthwhile labor-management relationship was, among other factors, the recognition of the identical interests of both management and labor and the realization that "there is no fundamental disagreement between the two."

Gas Industry PERSONALS

Among those receiving honorary Doctoral degrees at the closing of the Polytechnic Institute of Brooklyn's Centennial Convocation (October 8) was Philip Sporn, (right) president of American Gas and Electric Company, who received the honorary degree of Doctor of Engineering.

RG&E Home Service Manager Winner of National Award

Miss Irene L. Muntz, manager of Rochester Gas and Electric's home service and home lighting department won the national McCall Award for outstanding achievement in the home service field. She was presented with a plaque and $200 at the national meeting of the American Gas Association in Los Angeles, California, on October 18.

In her entry, Miss Muntz presented RG&E's overall home service program for 1954, stressing the number of personal contacts made, which totaled 47,000, the laundry promotion and general service to the community.

A graduate of the University of Rochester, Miss Muntz is active in civic affairs. She has also been president of the women's council of the Rochester Chamber of Commerce and was the first woman president of the Rochester Safety Council.

Miss Muntz has appeared on radio and television, including the first television program in Rochester. She received the Rochester Institute of Technology award for the outstanding alumna of the year 1955.

Selas Announces Changes In Sales Personnel Set-Up

William M. Smith, Selas Corporation of America, has been promoted from sales representative, New York City — North Jersey area, to the sales division, Selas home office, Philadelphia, Pennsylvania, to initiate and coordinate a number of sales and sales engineering activities and to handle special sales assignments.

William C. Schneider has left the Rochester, New York, territory to cover the New York City — North Jersey area.

Kenneth E. Rasmussen, formerly associated with the company's sales engineering department, has replaced W. C. Schneider as sales representative in the Rochester district. This move became effective November 1.

Harry E. Morton has become a sales representative in the Chicago, Illinois, district.

Keating Appointed to New Job With Ohio Fuel Gas

Thomas E. Keating has been appointed manager of distribution office operations for the Ohio Fuel Gas Company.

T. E. Keating

He previously was co-ordinator of commercial accounting for two years.

Keating began work with Ohio Fuel in 1942 as a meter reader and later worked as a service man and storekeeper. In 1948, he was transferred to Columbus, Ohio, to supervise the installation of a new company-wide customer account number system.

He also has performed special assignment work in the customer accounting department and served as auditor of local office accounts.

Rockwell Executive On European Inspection Tour

L. A. Dixon, executive vice-president of Rockwell Manufacturing Company, has left on a one-month inspection tour of manufacturing facilities of Rockwell licensees in four European nations.

A principal point of interest on the trip will be a new gas meter plant just completed by the Italian Government near Milan, Italy, under an "engineering know-how agreement" with Rockwell. The new plant is expected to meet the increased demand for meters brought about by the current rapid expansion of the natural gas industry in Italy.

Dixon will visit other plants making Rockwell meters in Italy, France and England and companies producing Rockwell-Nordstrom lubricated plug valves and other Rockwell products in France, Germany, England and Italy.

George Tuggle

L. L. Gowans

Honolulu Gas Announces Four New Vice Presidents

The Honolulu Gas Company has announced the appointment of four new vice presidents of the company. All are existing department heads and company officers.

J. C. Rosebrooks, treasurer, will be vice president and treasurer. Others named are Lyman L. Gowans, executive engineer; George Tuggle, operations superintendent, and Robert D. Scott, general sales manager.

In addition, Restarick Withington has been made secretary. He has been assistant secretary.

Superior Meter Appoints Head of Quality Control

Parker Anderson, formerly superintendent of meters at Michigan Consolidated Gas Company, has been named quality control engineer of Superior Meter Company, Brooklyn, New York.

P. Anderson

Superior is a subsidiary of Neptune Meter Company.

When the company's second plant is opened in Punxsutawney, Pennsylvania, in early 1956, Anderson will make his home in that city.

Prior to joining Superior Meter, Anderson was charged with the inspection, maintenance and repair of customer meters and house regulators in the Detroit utility.

Personals In Brief . . .

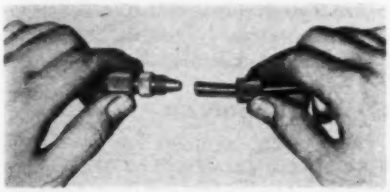
Leo C. Mueller Jr. has been appointed sales engineer for the Birmingham, Alabama, sales district for the American Meter Company, with headquarters at Mobile, Alabama. **Hugh A. Bate** is now a sales engineer for the Birmingham sales district.

Ralph G. Griffin has been appointed manager of Worthington Corporation's Cincinnati, Ohio, district office. He succeeds **Earle W. Vinnedge,** who has been named special representative of the Cincinnati district office concentrating on larger negotiations.

new | Gas Industry equipment

PVC Fittings, Flexible Tubing — Tube Turns

Tube Turns has introduced a new line of instrumentation fittings made of unplasticized polyvinyl chloride and,



for use with them, corrosion resistant flexible tubing. They are designed for long service life and are especially useful where corrosive atmospheres exist.

These new products permit an entire assembly to be put together by hand without the aid of wrenches, flaring or bending tools, or stretchers. No sleeves or ferrules are involved — all that is needed is a knife or scissors to cut the tubing to the proper length.

The new PVC fittings will hold burst pressures in excess of those to which the flexible tubing may be subjected, and they cannot be overtightened by hand. The connections and tubing are unaffected by vibration and severe movement.

Fittings and tubing are furnished in both ¼ in. and ⅜ in. sizes. Maximum working pressure is 150 psi at 75F.

These new instrumentation products are to be featured at the Second International Automation Exposition, which will be held in Chicago, Illinois, November 14-17.

Tube Turns Plastics, Inc., 224 East Broadway, Louisville 1, Kentucky.

Rockwell Gas Testing Equipment

The complete line of the company's gas testing equipment, including bell provers, flow provers, test meters and flow indicating meters, is described in this completely revised version of the bulletin. The new bulletin includes detailed factory recommendations for proving meters at different rates of flow. Also described are the company's test meters, which are large-dial modifications of new standard aluminum domestic and commercial meters. The large-dial meters are designed for use in factory, showroom, laboratory or testing department, and have been used in demonstrating the amount of gas consumed by ranges, furnaces, clothes driers, refrigerators and other gas appliances.

Bulletin No. 1066-5. Pp. 8. Meter and Valve Division, Rockwell Manufacturing Company, 400 North Lexington Avenue, Pittsburgh 8, Penn.

Perma-Seal Bell Joint Clamps, Seal Sleeves—United Pipe

This bulletin describes new methods of clamping bell joints and repairing and making pipe connections in construction and maintenance work in the gas industry. The company's clamp for bell joint repair forms a seal by adhesion rather than by compression, while the company's sleeves are designed principally for gas connection work under pressure. The bulletin presents information on unit features, construction, and specifications.

Bulletin No. GA. Pp. 8. United Pipe Suppliers, Inc., Box 777, Beloit, Wisconsin.

Arco Aluminum Paints

Aluminum paints which reportedly provide protection under severe conditions of moisture, alkali and acid fumes, creep corrosion and hot sunlight are described in this bulletin. The paints include: silveray aluminum, for use as a wood primer or first coat over asphalt or materials where bleeding may occur, and where normal industrial fumes prevail; synite aluminum for use on storage tanks, piping or any exterior metal subject to severe moisture; high heat aluminum, for steel stacks, ovens, boiler fronts and other surfaces where temperatures range from 300 to 800 F; and asphalt aluminum paint, for exterior or interior seal, such as chemical storage tanks and railway equipment, which are subject to severe moisture or fume conditions.

The Arco Company, 7301 Bessemer Avenue, Cleveland 27, Ohio.

Sealtight Pipe Shields

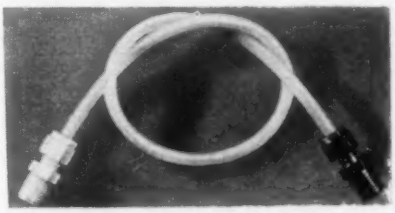
This new bulletin presents descriptive information about the manufacturer's protective shield for pipes—a sturdy, flexible, asphalt mastic board manufactured in job specified sizes. This pipe shield is scored every inch and is easily formed and strapped to pipe thereby providing a positive protection against all rock damage, according to the bulletin.

W. R. Meadows, Inc., Department PS, Elgin, Illinois.

Tube Fittings — Crawford

A complete new line of Swagelok tube fittings made of Zytel polyamide resin for plastic tubing where corrosion is a problem has been announced by Crawford Fitting Company. It is stated that Swagelok tube fittings of "Zytel" are the first to be made in elbows, tees, reducers, adapters, plugs, caps and bulkheads.

With Swagelok fittings of metal or "Zytel", no preparation of tubing is necessary. The tubing may be inserted



in the fitting and the nut tightened.

Swagelok tube fittings of "Zytel" are designed to provide strong, torque-free, leakproof seals or joints at all tubing connections. No sleeves or inserts are necessary.

Crawford Fitting Company, 884 East 140th Street, Cleveland 10, Ohio.

Impactools

Production men will be interested in this new bulletin which is devoted entirely to the problem of running nuts, bolts, cap screws, and other type fasteners. Actual case histories presented in the bulletin report that light-weight air impactools are an aid in reducing fastening costs. The bulletin also contains information about the complete line of air impactools. A two-page spread is devoted to each size. It contains illustrations, specifications and the equipment furnished with each tool. On-the-job application pictures and case history studies are included. Seventeen pages cover accessories and sockets used with the impactools. The complete line of the company's air tools, universal electric impactools, multi-cycle electric tools and other products are illustrated and described.

Bulletin 5200 A. Pp. 52. Ingersoll-Rand Company, 11 Broadway, New York 4.

Electric Industrial Motorized Valve Assemblies

All information required for selection of the company's valve bodies, linkages, and power units, and references to other sources of data on the subject, are presented in this bulletin. Combinations and condensed specifications for motorized valve assemblies are described.

Bulletin 8506. Pp. 4. Minneapolis-Honeywell Regulator Company, Industrial division, Philadelphia 44.

Explosive Gas Indicator— Hogart and Davis

The Page Sensor Pocket Model Explosive Gas Indicator has been introduced jointly by Hogart Engineering Company and Davis Emergency Equipment Company, Inc.

This pocket-size gas indicator is the result of ten years of development and research by Dr. Carl M. Page, director of research of the Hogart Engineering Company.

To use it, the operator merely removes the indicator from its plastic case and, depresses the light bulb, which acts as a switeh. When the switch is on, the bulb glows dimly. If there is a trace of combustible gas or vapor in the atmosphere, the light begins to flash intermittently. As the concentration of combustibles increases, the flashing becomes more rapid, until a steady bright light indicates the atmosphere is hazardous.

Davis Emergency Equipment Company, 47 Halleck Street, Newark, New Jersey, and Hogart Engineering Company, 1050 South Olive Street, Los Angeles, California.

SVG Gas-Engine-Driven Compressors

Gas-engine-driven compressors in the 330 to 660 hp range are described in this bulletin. It covers all features of type SVG four-cycle gas-engine-driven compressors, which are suited for oil field, refinery and natural gas applications as well as industrial plants where gas fuel is available. All important details of the machines are pointed out on cross-section drawings, including one which traces the paths of fuel, exhaust gases, lubricating oil, cooling water and the gas being compressed. Special sections, cover specifications, dimensions and data. The companion gas-engine power unit, the PSVG is also described. Ten pages of photographs show the compressors at work in oil fields, natural gas service, refineries, gasoline plants and in industrial applications.

Bulletin 3128-A. Pp. 44. Ingersoll-Rand Company, 11 Broadway, New York, 4.

BS&B Controls Sizing Manual

A new method developed by the company for sizing controls is described in this bulletin. The new method utilizes two basic instruments; a size-o-graph, to determine what the valve must do, and CV ratings, to determine what the valve will do. The control valve flow coefficients, as tabulated in the bulletin's tables, were determined from actual flow tests with water as the flowing medium. Gas and steam flow equations are derived from known laws of thermodynamics and fluid flow principles. Ample reference charts and tables are provided in the bulletin to reduce computation burden and assure sizing accuracies.

Bulletin 120-2-55. Pp. 24. Black, Sivalls & Bryson, Inc., 15 North Cincinnati, Tulsa 1, Oklahoma.

Stainless Steel Valves

A technical data booklet covering stainless steel valve design, selection, maintenance and repair, this bulletin has been printed to form part of a forthcoming new catalog. Photographs, engineering drawings and cut-aways combine to make a complete, yet condensed, discussion of stainless valves. The valves described are designed for the handling of gas or liquids which by their nature or the conditions under which they are being handled demands the use of corrosion or contamination resistant materials.

Bulletin No. 55. Public Relations division, Cooper Alloy Corporation, Hillside 5, New Jersey.

Flodar Combination Fittings

The self-flaring fittings described in this bulletin may be applied to all commercial tubing; steel, copper, brass, stainless steel and aluminum, according to the company. The fittings are said to make perfect joints, because tubing is internally supported by wedge insert upon which self-flare is made as nut is tightened. Also, fittings reduce installing time, because mechanical flaring is eliminated, and they offer repeated assembly and disassembly, because each time the fitting is assembled the nut comes to a positive stop. The fitting is said to provide full, unrestricted flow of fluid through tubing at joint because assemblyman is prevented from connecting tubing to fitting unless cut-off end of tubing has full, unrestricted passage, free from collapsed walls or inside burrs.

Bulletin No. BA 555. Pp. 4. Flodar Corporation, 1366 East 45 Street, Cleveland 3, Ohio.

Taller and Copper Carbon Monoxide Detector

Describing a precision hopcalite-type carbon monoxide detector and its uses with the company's potientiometer, to provide control of CO in physiologically significant concentrations, this bulletin presents information on application, operating principles and equipment and components. Carbon monoxide in concentrations as low as 5 parts per 10,000 is a deadly poison; this unit is sensitive to variations as small as 0.05 part of CO per 10,000.

Bulletin No. 10.15-13. Minneapolis-Honeywell Regulator Company, Industrial division, Philadelphia 44.

Compressor — LeRoi

A 16-page bulletin has been issued by the Le Roi Division concerning its new gas booster compressor. The bulletin illustrates sectional views, component parts and the complete packaged unit, which consists of a gas-gathering compressor powered through a clutch and V-belt drive by a Le Roi engine.

A two-page sectional view of the compressor illustrates 18 specific features — all labeled — of the 5, 7, 9, 11 and 13-in. stroke machines, ranging in size from 10 to 300 hp.

Le Roi Division, Westinghouse Air Brake Company, 1706 South 68th Street, Milwaukee, Wisconsin.

Oxygen Analyzer

Two of the company's oxygen analyzer models are described in this new bulletin. The instrument can be used for measuring the oxygen content of either continuously-flowing gas samples or fixed volume samples as small as 3 cc. With either type of sample the oxygen content is read directly from a translucent scale, without use of catalysts, filaments, chemicals, or mechanical hook-ups. The bulletin presents information on the principle of operation, method of measurement, outstanding features and applications.

Bulletin 114. Pp. 4. Arnold O. Beckman, Inc., 1020 Mission Street, South Pasadena, California.

Operating Instructions — Detectron Pipe Detector

A new, up-to-date operating manual for pipe detecting instruments, this bulletin was written chiefly for the operation of one model but it contains operating hints and other information useful with any make of pipe detector. The bulletin offers data on detecting unknown pipes, tracing, centering, depth estimation, detecting valves and locating services and stubs. Also included is an appendix containing special operating tips and a price list covering replacement parts.

Bulletin Detectron Model 505. Pp. 8. Detectron Corporation, 5528 Vineland Avenue, North Hollywood, California.

List of American Standards

The 1955 edition has been published and the 48-page publication lists and indexes about 1500 standards. There are 210 for construction and civil engineering, 153 mechanical, 272 electrical, 158 safety, 62 metallurgy, 38 gas-burning appliances, 32 drawings, and letter symbols and abbreviations. A separate section on consumer goods contains an index of standards including household appliances and furnishings.

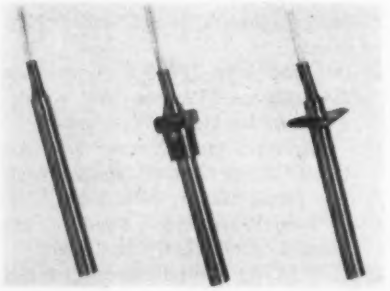
American Standards Association, 70 East 45 Street, New York 17.

new Industrial Processing equipment

Midget Thermostats — Fenwal

A new line of midget thermostats, ¼ in. in diameter and less than 2½ in. long, has been developed by Fenwal, Inc. They weigh approximately 1 oz. The thermostat is designed for precise temperature control or heat detection applications in heated equipment, bearings, pumps, etc., wherever installation space is at a premium.

The midget Thermoswitch may be set to actuate at any specified temperature between —50 to 500 F. Contacts open when the temperature exceeds this set point; inverse-action models are also available in which the contacts close above set point temperature.



This Thermoswitch unit is available in a variety of head styles to meet various mounting requirements. These are: A basic cartridge-style unit for insertion into a cylindrical cavity, two screw-in models with hexagonal heads for threading into ⅛ and—⅜ in. bushings or tapped holes and a flanged-head unit for surface mounting.

The thermostat is rated to handle an electrical load of 1 amp, 115 a-c. Larger loads can be handled with a relay. Cartridge bodies and mounting accessories are of polished stainless steel; wiring leads are teflon coated for long service life.

Fenwal, Inc., Ashland, Massachusetts.

Valve Positioner — Barber-Colman

A new bulletin, F 5991-1, describes the Wheelco Throttltrol, an automatic positioner for use in conjunction with any control instrument having a high and low contact with a neutral position.

The Wheelco Throttltrol automatically and accurately corrects for variations in heat requirements due to changes in furnace load, control settings, air and fuel pressure, Btu values, or combustion efficiency in batch type operations. The unit is completely self-adjusting and requires no manual adjustments or resetting devices.

Bulletin F 5991-1, Wheelco Instruments division, Barber-Colman Company, Rockford, Illinois.

Gas Fired Forge —Champion

The Champion gas-fired forge is said to be the modern method to do all types of forging work such as plow shares and heating metal for hardening, forming and shaping.

The forge requires no attention, does not involve the disposal of ashes, and is ready to use by turning on the blower switch and lighting the gas. Assure proper heating of metal in minimum time for two operators. Burns natural or manufactured gas.

The forge is especially adaptable for working in a closed building where smoke and excessive fumes would be objectionable. Heat can be taken off either by an exhaust fan or a stack mounted directly over the forge, if the heat in the closed room is objectionable. This forge is suitable for use in vocational education departments of schools.

The forge is equipped with a Solenoid safety valve. The blower must be in operation before the Solenoid valve will allow the passing of gas to the mixing chamber in the blower.

Champion Blower and Forge Company, Lancaster, Pennsylvania.

Combustion Safeguard — Control Engineering

The Safety Equipment Division of Control Engineering Corporation has announced the release of its new Twin Flame combustion safeguard system specifically designed for gas-fired industrial equipment.

Twin Flame represents an advancement for higher standards of safety, ease of installation and lower maintenance. The effective utilization of constant impinging flames to complete an electrical path in a voltage responsive system has eliminated flame rods and photocells completely. Separate Programmer and Flame Detector units provide economical, positive and continuous flame supervision by flame itself. Multiple-burner installations are also feasible.

Simplicity of Twin Flame design offers ease of adaptation to industrial gas burners and pilots currently employed in industry. The loss of production time and materials are reduced to a minimum through the elimination of a high percentage of false shutdowns.

Safety Equipment Division, Control Engineering Corporation, 934 Washington Street, Norwood, Massachusetts.

Wheelco Capaciline — Barber-Colman

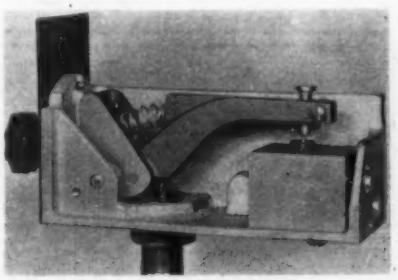
Bulletin F 5795-2 describes how the Wheelco Capaciline, a supplementary control device, anticipates the fuel needs of controlled heating equipment and enforces straight line control on the process variable.

In the Wheelco Capaciline, heat transfer lags are anticipated and effectively compensated for by means of a unique and simple electrical network and relay circuit synchronized with the measuring system and controlling circuits without affecting accuracy of the temperature reading at the control point.

Bulletin F 5795-2, Wheelco Instruments Division, Barber-Colman Company, Rockford, Illinois.

Pneumatic Control — Burling

The new Burling Model DA is designed for use on all installations where temperature is to be controlled by varying the flow of gas, steam or other medium with an air-operated valve or motor.



It may be used in any pneumatic system up to 50 psi and will reduce the output or branch line pressure as temperature increases. Since it operates by the differential expansion of solids and uses no liquid or vapor fill, it is available for temperatures up to 1800 F. Temperature adjustments are made with knob on front of case. Throttling ranges are fixed, but may be specified as narrow as 5 deg or as wide as 100 deg.

Control is obtained by the difference in expansion of two concentric tubes actuating a pilot valve through a lever. Outer tube may be brass, stainless steel or special alloys, and threaded mounting fittings may be supplied when required.

Burling Instrument Company, 16 River Road, Chatham, New Jersey.

Gas Industry CALENDAR

NOVEMBER

6-9 Controllers Institute of America, Hotel Statler, Los Angeles.

7-11 National Hotel Exposition, Kingsbridge Armory, New York. (AGA will exhibit.)

13-18 ASME, Congress and Hilton hotels, Chicago.

14-15 AGA accounting section, managing committee, Plaza Hotel, New York City.

14-17 API, San Francisco.

14-18 National Electrical Manufacturers Association, Traymore Hotel, Atlantic City, New Jersey.

16 NEGA Safety Conference. Hotel Statler, Boston.

16-18 Southeastern Gas Association, Roanoke, Va.

18 SGA national gas drilling and production conference, Shamrock Hotel, Houston, Texas.

18 SGA transmission management conference, Shamrock Hotel, Houston.

18 NEGA heating group of C-H-I division (place not determined).

28-30 SGA advisory council and management conference, Point Clear, Ala.

DECEMBER

1 NEGA appliance servicing conference, Hotel Statler, Boston, Massachusetts.

1-2 AGA-EEI conference planning group, AGA headquarters.

JANUARY 1956

10 NEGA, operating division, Hotel Statler, Boston.

13 SGA air conditioning sales conference, Jackson, Tennessee.

19 NEGA operating division, Hotel Statler, Boston.

19-26 National Housewares & Home Appliance Manufactures Exhibits, Navy Pier, Chicago.

20 SGA air conditioning sales conference, Shamrock Hotel, Houston.

20 SGA employee relations conference, Shamrock Hotel, Houston.

22-26 National Association of Home Builders, convention and exposition, Chicago. (AGA exhibit.)

23-24 Industrial Heating Equipment Assn., LaSalle Hotel, Chicago.

27 SGA domestic meters and regulators conference, Heidelberg Hotel, Jackson, Mississippi.

27 SGA accident prevention conference, Jung Hotel, New Orleans.

FEBRUARY

6-10 Western Winter Radio-TV and Appliance Market, Western Merchandise Mart, San Francisco.

16-17 SGA accounting management conference, Jung Hotel, New Orleans.

16-17 SGA sales executives conference, Jung Hotel, New Orleans.

MARCH 1956

1-2 SGA distribution management conference, Jung Hotel, New Orleans.

1-2 SGA transmission management conference, Jung Hotel, New Orleans.

12-16 National Association of Corrosion Engineers, Hotel Statler, New York.

15-16 American Trade Association Executives, Washington conference, Statler Hotel, Washington.

16 Metropolitan Heating and Air Conditioning Council, annual meeting, Hotel Statler, New York City.

19-21 Mid-West Gas Association, Hotel Fontenelle, Omaha, Nebr.

22-23 NEGA, annual meeting, Hotel Statler, Boston.

22-23 Oklahoma Utilities Association, annual meeting, Biltmore Hotel, Oklahoma City.

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Gas Merchandising

Lone Star Gas Display . . .

Sets Pace for Kitchen Design

. . . at State Fair Exhibit

Claribel Thompson
Lone Star Gas Company

★ Many Texas homemakers just naturally wait for the big State Fair of Texas every fall before making their final decisions on kitchen planning and major kitchen appliance selection.

Big reason is the change of pace that Lone Star Gas Company injected into its Natural Gas exhibit building on the fair grounds in Dallas some years ago.

Once upon a time the attractive Spanish-style building with the big blue, neon flame on the pylon, housed a variety of exhibits showing the application of gas from industrial use to domestic and commercial consumption.

Since 1946, however, with presentation of model kitchens so complete that visitors literally begged to purchase them in their entirety, the accent has been placed more and more on kitchen styling as the major exhibit feature.

And following the trend the popular homemaker magazines for informal living and increased family activities concentrated within an expanded kitchen area, Lone Star Gas Company began to encompass the exhibit planning with coordinated kitchen design from the pages of these popular magazines.

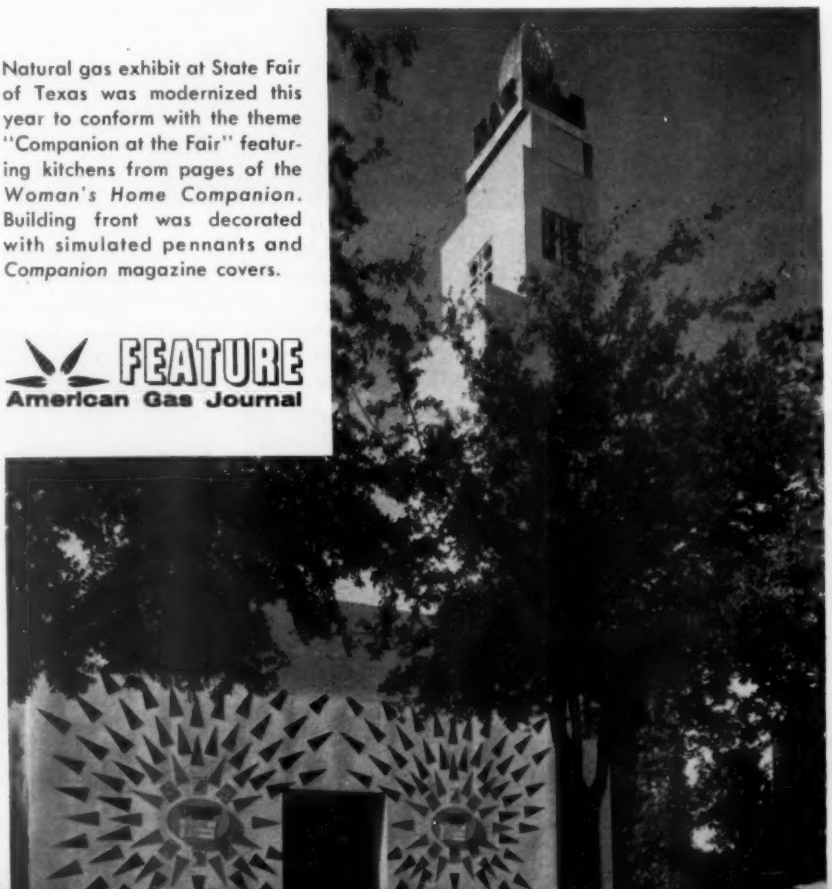
The 1955 display, typical of the influence and interest these magazines have had on the home building and home furnishing fields, featured a complete theme from *The Woman's Home Companion*.

Titled, "Companion at the Fair" and featuring the special two-day Dallas visit of *Companion's* home equipment editor, Miss Bernice Strawn, the exhibit plans included three complete kitchens and a recreation-laundry room reproduced exactly as shown in pages of the national magazine.

Also displayed were modern, vented heating equipment, gas clothes dryers, the new aluminum-construction gas water heaters and Servel gas air conditioning equipment, pointed up by the fact that Lone Star's exhibit building is equipped with Servel all-year air conditioning.

The fair program by Lone Star offered a special feature for the teen-age crowd, a Teen-Age Room tying in with *Woman's Home Companion* "Talk of the Teens" department. Here, party ideas and pamphlets on letter writing and conversation were available, and on one big day when high school youngsters took over the fair, a local radio station conducted its day-long disc jockey programs from the booth.

Big drawing card for the high school day also included give-away record albums, radio interviews with favorite disc jockeys on hand and several "Record-of-the-Month" cakes baked by Lone Star Gas Company's home economists.



Natural gas exhibit at State Fair of Texas was modernized this year to conform with the theme "Companion at the Fair" featuring kitchens from pages of the *Woman's Home Companion*. Building front was decorated with simulated pennants and *Companion* magazine covers.

FEATURE
American Gas Journal

Companion at the Fair

◆ Sparkling display of 28 different makes of gas ranges gave a "shop and compare" atmosphere to one of the big exhibit rooms and provided women visitors with the opportunity to seek features they most wanted in their new ranges. At left is long view of *Companion's* "Pic-A-Dor" kitchen.

◆ *Companion* "recreation-laundry" caught the eye of men who visited Lone Star exhibit because its big selling point suggested the simple conversion of two-car family garage. Laundry room is on opposite side of room divider, which doubles as TV bench.

◆ Peace and Quiet kitchen (October, 1954 issue) featured quiet colors, draperies, acoustical tile, vinyl flooring and counter tops, rubber sink and shelf liners and quiet gas refrigeration and air conditioning. Cooking unit, on reverse side of room divider, is gas built-in. View is from laundry area also used for breakfast bar.

◆ Exhibit building hallway featured 11 brands of built-in gas cooking units plus sketches and photos from *Companion's* "House for Family Living."

◆ Kitchen area of Peace and Quiet kitchen shows built-in gas oven on room-divider wall, with counter-top gas burners beneath cabinet vent, center. Island counter is moveable. Gas air conditioning makes it possible to keep windows closed and noise out, adding to quietness feature.

◆ Blue Flame kitchen, around which a house was built in the original *Woman's Home Companion* "House for Family Living" at New Rochelle, New York, is reproduction of feature in September, 1955 edition. Designed for all-gas home, kitchen includes family room set apart by center counter containing gas built-in, gas top burners. Built-in oven is at left. An overhead skylight bathes kitchen area in soft, diffused light. Servel refrigerator is built in cabinet wall. Sink includes new-type mixing faucet and dishwasher.

◆ Small display cubicle featured gas clothes dryers and both monel and new aluminum-constructed gas water heaters. Features of this equipment were pointed out with display cards above appliances.

◆ Main lounge carried pennant theme and used center space for display of gas-vented heating equipment. Credit poster used to express appreciation to *Companion* for help in publicizing.

◆ Servel refrigerators were displayed in improvised igloo with Ice Maker centrally placed. Offers to "buy the igloo" were also received, one woman stating it would "make such a lovely garden house."

More *and more* national ads more Gas

THE ADVERTISING PROGRAM OF THE SUPPLIERS TO THE GAS INDUSTRY IS SELLING NEW HOME BUYERS AND BUILDERS AND RESELLING PRESENT CUSTOMERS FOR YOU

Here are more of the colorful national advertisements paid for by the Suppliers to the Gas Industry, listed below, to protect and expand your business and ours! This program is paying off. We know by the hundreds of inquiries we have received.

The future of the gas industry is bright—1955 sales of gas and gas appliances prove it again. We want to keep it that way for you — and for us. That is why we are putting our cash into national advertising to tell present and future home buyers, builders, architects, plumbers and heating contractors that *"Gas Gives You More Because GAS Is Modern, Dependable, Automatic, Fast, Clean, Safe, Silent, and Economical."*

Many utilities are making this program pay extra dividends for them by publishing these advertisements in their local newspapers and sending proofs to their dealers. You can, too.

Consistent advertising in the Saturday Evening Post PLUS double page advertisement in Small Homes Guide is selling gas and gas appliances to present and future home owners, builders, architects, plumbers and heating contractors.

ALL SUPPLIERS are invited to join this effective program to help insure the future of the gas industry and their own businesses.

Sponsored by these Suppliers to the Gas Industry:

American Cast Iron Pipe Company
American Meter Company
Cleveland Trencher Company
Dresser Industries, Inc.
E. F. Griffiths Company
A. C. Lawrence Leather Company
Rockwell Manufacturing Company
M. B. Skinner Company
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Under the direction of the Equipment Manufacturers Advisory Committee of the Gas Appliance Manufacturers Association, Inc., 60 East 42nd Street, New York, N. Y.

helping you sell to more people

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FITS YOUR PRESE
OR FUTURE HOM
because Gas is
MODERN
DEPENDABLE
AUTOMATIC
FAST, CLEAN
SAFE and SILENT
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GAS
ECONOMY IN PLANNING CALLS FOR Gas
Home planners with modern ideas are finding that Gas is...
DEPENDABLE
MODERN
AUTOMATIC
FAST, CLEAN
SAFE and SILENT
... gives any degree of heat control
... is always on the job regardless of the weather
YES Gas gives you MORE
MORE FREE TIME because now GAS is more automatic and dependable than ever before!
MORE SPACE FOR LIVING with
MORE ECONOMY, TOO! You enjoy
MORE SELECTIONS! Because only
Only GAS gives you all 7 Famous Appliances
Build or remodel... you get MORE with GAS
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AUTOMATIC · FAST · CLEAN · SAFE and SILENT
...and GAS stays on the job regardless
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YES, Gas gives you
MORE SPACE FOR LIVING with gas
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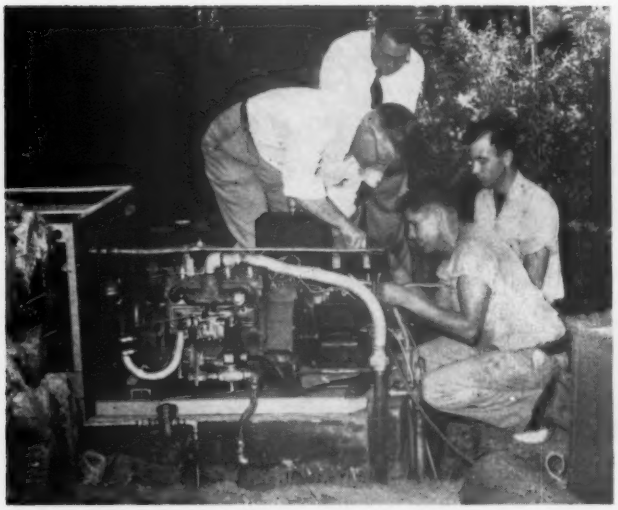
MORE ECONOMY, TOO! Heat
MORE SELECTIONS! Because
all 7 – Ranges, Refrigerators,
Air Conditioners, Water
American Meter Company
Servel
SEE YOUR DEALER OR GAS COMPANY TODAY AND LEARN HOW MODERN YOUR HOME CAN BE WITH GAS.
American Cast Iron Pipe Company
Servel
GAS
The kitchen's a lovely one at the latest automatic gas appliances
There's a huge playroom with the gas-heating plant and year-round air conditioning
Laundering with an automatic gas dryer and a gas water heater is twice checked! twice thrilling! Come, see our store.
Jeanne and Bill

FREE color reprints of advertisements in this series and newspaper mats in black and white, with space for your company signature, are available upon request.



George Chappel, head engineer of Cobell Industries, directs installation of intricate test equipment added to Cobaire air conditioner installed at home of Lone Star Gas Company executive Joe Darrow.

Lone Star executive Joe Darrow, left, and Luther D. Prescott, Cobell Industries' president, inspect finished Cobaire installation at Darrow's home. Unit was installed on a 4 x 6-ft concrete slab.

Cobell Introduces . . .

New Technique In Air Conditioning

● The results of a recent air conditioning installation by Lone Star Gas Company in Fort Worth, Texas, may well climax years of research undertaken by scores of gas engineers throughout the Southwest. These men have sought the ultimate in a residential air conditioning unit which would offer maximum operational efficiency while overcoming the problems of space requirement.

Such a unit is now under production by the Cobell Industries of Fort Worth, with the first in a series of field test models being installed at the residence of Lone Star divisional vice president, Joe C. Darrow.

The Cobaire unit utilizes a new technique developed and applied to an established engineering principle by Thomas W. Carraway, research engineer. Basic components consist of a gas-driven reciprocating engine that engages a standard refrigerant compressor by means of a centrifugal dry-type clutch. The delayed clutch-action enables the prime mover to attain a speed of approximately 1000 rpm before engaging the compressor load, thus minimizing all starting torque. This feature reduces the over-all horsepower requirement with a resultant decrease in the physical dimensions of the unit.

Condensing of the freon refrigerant and engine cooling are accomplished by means of Cobell's highly efficient "Aqua-Fog" condenser, wherein a combination of water spray and forced air achieve a high degree of rapid heat transfer. All of these features combine to give the unit a reported output of one ton of refrigeration per one horsepower.

The flexibility of the unit, rated as a highly valued characteristic by the application engineers, was demonstrated by installation in the Darrow residence, a typical brick structure. By excluding several walk-in closets, a normal three-ton load was calculated for the remaining 1475 sq ft of living area. Existing warm air ducts (designed for central heating use) were utilized in their entirety with the cooling coil inserted in the main trunk line, just forward of the fan section. This indicates the widespread adaptability of the unit to new or existing homes, with or without central heating systems.

Performance of this unit will be checked periodically by Lone Star engineers by means of a control panel specially designed to register operating pressures and consumption requirements.

Installation costs are further reduced by eliminating the equipment room factor since the unit is roughly equivalent in size to the average 72-in. office desk, while the all-weather outer case permits outdoor placement without damaging effects.

According to Cobell President, Luther D. Prescott, "No maintenance at all should be required in an average 2200-hr season, and the total operating cost is less than half that of a comparative electric model."

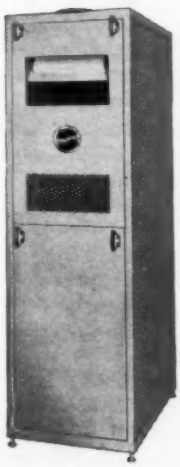
Current production will be devoted to units of three, five, seven and one-half, and ten-ton capacities. * * *

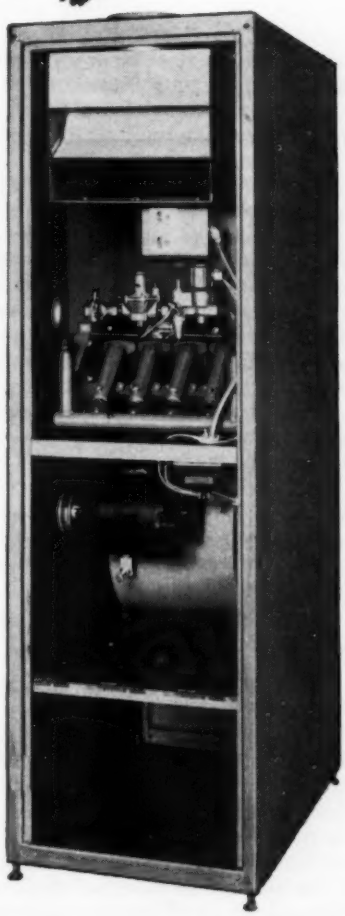
Get the jump on competition... WITH EMPIRE

MAKES THE BEST *Gas* HEATING APPLIANCES IN THE WORLD

There's NO DOUBT *about it!*

1. Empire's powerful blower is cradled in rubber for amazingly quiet operation.
2. The heat exchanger is engineered to eliminate expansion and contraction noise.
3. The over-size filter traps dust, dirt and pollen . . . helps keep your home shining clean!
4. Smart, durable steel cabinet has fused-enamel finish, is beautifully designed.
5. Vented to remove combustion wastes. Welded gas-tight. Draft diverter prevents down-drafts.
6. Empire's exclusive "Thriftmatic" Gas Burner delivers every penny's worth of heat from your fuel. Featuring the "stainless steel" ribbon type cast iron burners.
7. Automatic room temperature controls, necessary limit switches both blower and bonnet and automatic pilot (100% cut-off type) are standard equipment.
8. All controls, burners and heat exchangers are accessible from the front — Flues can be cleaned from front without any disconnections or dismantling.





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EVERYTHING YOU'VE DREAMED OF IN HOME HEATING!

EMPIRE GAS WINTER AIR CONDITIONERS
(Basement, Utility room and Closet type)

EMPIRE

A Great Name in Gas Appliances

STOVE COMPANY
BELLEVILLE, ILLINOIS

More Customers, More Consumption ...

Appliance, Equipment Sales Reaching New Peaks

Continued growth of gas industry sparks optimism of GAMA members at Palm Springs Convention

● ANOTHER RECORD-BREAKING YEAR. That's the prediction for 1955 for the nation's gas industry.

Gross production of natural gas will surpass the record high of 11 trillion cu ft produced in 1954.

The number of gas utility customers will approximate 29,000,000, another record.

The consumption of gas in industry and in the nation's homes will top the previous high by more than nine per cent.

Sales of gas appliances and equipment, in most major categories, will surpass even the war-stimulated year of 1950 — previous high point for this branch of the industry — with ranges, water heaters and gas central heating installations estimated to approach 6,500,000 units this year.

And 1956 will be even better than 1955.

These predictions were made by **Thomas T. Arden,** president of the Gas Appliance Manufacturers Association, at the group's 20th annual meeting. Arden, who is also executive vice president of Robertshaw-Fulton Controls Company, said his forecast was based on the known performance of the industry to date, industry commitments for the balance of the year, and industrywide surveys conducted by GAMA and the American Gas Association.

Three basic factors are responsible for the spectacular industry gains.

First is the multi-billion-dollar expansion of the natural gas pipe line system that brings gas to new markets, and increasing the supplies to other areas previously served by inadequate transmission facilities.

Second is recognition among builders of new homes and modernizers of existing ones that the use of gas and gas appliances for multiple purposes in the home is an efficient and economical step toward home automation.

Third is the trend on the part of industry toward utilizing natural gas in a triple role as a fuel, a tool, and as an ingredient in many processes.

Optimism Shared

James Sands, chairman of the industrial gas equipment division of GAMA, and vice president of Eclipse Fuel Engineering Company, Rockford, Illinois, said gas is now employed by 112,000 industrial organizations and that the fuel has become virtually indispensable in the processing of nearly every item required in the nation's daily living. Cosmetics, television tubes, tin cans, foods, textiles, paints, chemicals, printing, steel and other metals were cited as examples of the variety of industries in which gas plays an important part. More than 80 different gas processes are involved in the assembly of an automobile, ranging from the block-testing of engines to the quick-drying of body paint.

Industrial gas users consumed 33 billion therms last year — three times the amount used in the "all-out" defense production year of 1941. He predicted that the continuing growth of the pipeline system, development of new industrial gas processes and equipment will boost annual consumption to more than 38 billion therms by 1958.

Most bullish among the manufacturers of domestic gas appliances and equipment were representatives of the house heating and water heating segments of the industry.

G. W. Denges, chairman of the gas warm air furnace division, said furnace shipments during the first eight months of this year totaled 517,000 units, nearly 36 per cent above the all-time high of 1954.

Gas central heating systems in use at the end of 1955 will exceed the total of oil heat installations. He said there were only 1,292,000 gas central heating plants in American homes in 1945, and that the total increased more than 400 per cent to 6,959,000 by the end of 1954, while oil units went from 2,517,000 units in 1945 to 7,606,000 at the end of last year, an increase of 202 per cent.

Sales Exceed Expectations

N. E. Westphal, chairman of GAMA's boiler division, whose members produce equipment for steam and hot water home heating systems, predicted that two and one-half million additional homes will be heated with gas during the 1955-56 and 1956-57 heating seasons to bring the total of gas heated homes to more than 17 million. He said the boiler makers early this year anticipated about a four per cent increase over 1954, but that eight months' shipment figures revealed a rise of 11 per cent over the same period of last year. Westphal, director of research and engineering for Weil-McLain Company, Michigan City, Indiana, said a recent survey of manufacturers indicated that 1956 sales will run 6½ per cent above this year's total.

Only one category of gas central heating failed to show an increase during the first eight months of this year —gas conversion burners. However, **Edward P. Hayes,** chairman of the division, and vice president of C. A. Olsen Manufacturing Company of Elyria, Ohio, pointed out that most conversion burner manufacturers also produce either boilers or furnaces and that sales increases in those items far more than offset any decline in conversion burners. He added that conversion burner sales invariably spurt spectacularly as new areas convert to natural gas. The next big jump in conversion burner sales will occur when natural gas reaches the Pacific Northwest next year, Hayes predicted.

Harry Carbon, chairman of the gas water heater division, said his branch of the industry is enjoying its greatest year, and is certain to finish 1955 with an all-time record, at least 10 per cent above the previous high of 1950. Shipments during the first eight months of

this year totaled 1,894,400 units, 24 per cent greater than during the same period of 1954. Carbon, who is president of Bastian-Morley Company, Inc. of La Porte, Indiana, said the August, 1955, shipments of 271,000 units was the highest monthly total in the history of the industry.

Possible Record '56

A recent survey of gas water heater manufacturers indicated that the group felt 1956 sales may fall off two or three per cent from the 1955 peak. However, Carbon added, "these manufacturers are always conservative in their estimates. In January of this year they estimated that shipments might run about two per cent above 1954 — 22 per cent below the actual figure at the end of eight months. If 1956 follows the pattern, we might set another new record."

Manufacturers of gas ranges also are surpassing their conservative estimates of early 1955, according to **E. Carl Sorby,** vice president of Geo. D. Roper Corporation of Rockford, Illinois, and chairman of GAMA's domestic gas range division. At the end of 1954, manufacturers anticipated a 1955 increase of about five per cent over the 1954 total. Actually, shipments for the first eight months were 1,512,900 units, an increase of more than 16 per cent. Shipments for the month of August hit a whopping 223, 400 units, highest month of the year, and more than 30 per cent above the same month of 1954.

Sorby pointed out that these figures do not include "built-ins" the decentralized oven-broiler and top-burner arrangements that are increasingly popular with new home builders.

A relatively new gas appliance— the clothes dryer — which has been climbing in sales year by year, will hit another new high this year, according to **Norman Millard,** chairman of the gas dryer division. Millard, who is manager of utility sales for the Crosley and Bendix Home Appliance Divisions of Avco Manufacturing Corporation, said this year's dryer sales will exceed 250,000 units, about four times the 1950 volume.

He predicted that 1956 would see not only another peak, but also that the gas dryer and the all-in-one washer and gas dryer combination unit would capture a larger percentage of the market. Currently, he said, gas models account for more than 25 per cent of dryer sales. However, he added, in more than a dozen important markets gas dryers lead in sales and are running about even in many other markets.

Millard said the increased sales and improved competitive position will result from the increasing promotional support being given to dryers by gas utility companies. "They have something to promote, too," Millard said, "since gas dryers have the virtues of speed and economical operation. In most areas the differential in operating cost in favor of the gas dryer during its operating life adds up to more than the original cost of the appliance."

Automation in the Home

Frank H. Post, chairman of GAMA's automatic controls division, said the controls industry is running well ahead of 1954 and expectations are that next year sales will surpass 1955 by a substantial margin. Post, who is sales manager of the Robertshaw Thermostat Division, Robertshaw-Fulton Controls Company, said the continuing trend to automation in the home assures an increasing demand for the products of the industry. Sale of controls is likely to run at a faster rate than appliances generally because many appliances are now using a number of automatic controls.

R. H. Norris, executive vice president of the Dearborn Stove Company, Dallas, Texas, and chairman of the direct heating equipment division of GAMA, said his group reported sales for the first six months 32 per cent above the first half or 1954, and expected to keep up that pace during the rest of the year. Norris said the division anticipates 1956 volume will be approximately the same or slightly better. He attributed the recent sales rise to expanded gas transmission and distribution facilities and to stepped-up promotion of newly designed room heaters that fit in with the decor of the home.

Manufacturers of recessed wall heaters and floor furnaces report that the national trend to home modernization has stimulated the demand for both types of equipment. **Ralph E. Solomon,** director of engineering for Samuel Stamping and Enameling Company, Chattanooga, Tennessee, pointed out that additions to a home do not require replacement of existing central heating plants since floor and wall furnaces can be installed in the newly added space to provide the necessary additional heat. Solomon added that wall heaters and floor furnaces are particularly desirable where space is at a premium. He also said there is a trend in many parts of the country to the use of two or more wall heaters or floor furnaces in homes to provide zoned heat with precise controls so that individual rooms or home areas can be warmed as needed, without warming areas that are not in use. Wall heater sales during the first six months were 24 per cent above the same 1954 period while floor furnaces were up eight per cent.

Incinerators On Upswing

Frederick H. Martin, vice president of the Martin Stamping and Stove Company, Huntsville, Alabama, said domestic gas incinerators that perform the dual job of consuming household trash and garbage are making steady progress as a new member of the gas appliance family. Expansion in this field can be judged by the fact that there were only three manufacturers of AGA approved gas incinerators operating in 1948 and now 39 companies produce the gas-burning garbage and trash disposers. He predicted substantial gains for next year, particularly in new housing developments, where the gas incinerator is now being used to solve the community problem of trash and garbage collection.

Wendell M. Smock, president of Vulcan-Hart Manufacturing Company, Louisville, Kentucky, said sales of hotel, restaurant and commercial gas equipment were up six per cent during the first six months of 1955 over the same period of 1954 and that manufacturers expected about the same performance during the rest of the year. He pointed out that gas equipment almost completely dominates the commercial and institutional cooking field with more than 95 per cent of the 65,000,000 meals served daily in public eating places being cooked with gas. The replacement market for existing equipment and the overwhelming preference for gas in newly constructed hotels, restaurants and institutions assure the manufacturers of continuing demand, Smock said.

Other chairmen of GAMA divisions whose members produce a variety of products and accessories used in production, transmission and distribution of gas and in the manufacture of appliances and equipment reported progress parallel to the overall expansion of the entire industry.

These divisions and their chairmen are:

Gas appliance regulator division, **Frank J. Kern, Jr.,** president of Maxitrol Company, Detroit, Michigan; gas engine compressor, **A. M. Buxton,** general sales manager for Cooper-Bessemer Corporation of Mount Vernon, Ohio; gas meter and regulator, **Gilbert T. Bowman,** sales manager for Gas Products and Nordstrom Valve Divisions of Rockwell Manufacturing Company, Pittsburgh; gas valve, **F. W. Schmidt,** secretary-treasurer of Roberts Brass Manufacturing Company, of Mitchell, Indiana; relief valve, **E. F. Kurtz,** sales manager for Spencer Thermostat Division of Metal and Controls Corporation, Attleboro Massachusetts.

New GAMA Officials

W. F. Rockwell, Jr., president of Rockwell Manufacturing Company, Pittsburgh, is the new president of the Gas Appliance Manufacturers Association.

H. Leigh Whitelaw, managing director for the past 12 years, has been named to the newly created post of executive vice president, and **Harold Massey,** assistant managing director since 1946, has been made managing director and secretary.

Other officers elected include: first vice president — **A. B. Cameron,** president of Ruud Manufacturing Company; second vice president — **Julius Klein,** president of Caloric Appliance Corporation; treasurer — **F. Shepard Cornell,** vice president and general manager of A. O. Smith Corporation.

Division chairmen, vice chairmen and executive committee members for 1956 are as follows:

Domestic Gas Range Division: chairman — **Wendell C. Davis,** president of Cribben and Sexton Company, Chicago; vice chairman — **Cecil M. Dunn,** president of Magic Chef Inc., St. Louis, Missouri.

Gas Appliance Regulator Division: chairman — **Walter Lee** of Major Controls Company, Corona, California; vice chairman — **Wayne Schutmaat** of Penn Controls Inc., Goshen, Indiana; executive committee member — **Frank Kern, Jr.,** president of Maxitrol Company, Detroit.

Gas Meter and Regulator Division: chairman — **Earl B. Cutter** of American Meter Company, Erie, Pennsylvania; vice chairman — **Thomas J. Watt** of Sprague Meter Company, Bridgeport, Connecticut; executive committee member — **Gilbert T. Bowman,** Rockwell Mfg. Company.

Automatic Controls Division: chairman — **Karl Schick,** gas division sales manager of Minneapolis-Honeywell Regulator Company, Minneapolis; vice chairman—**Ed Maire,** vice president of Penn Controls Inc., Goshen, Indiana; executive committee members—**Frank Post** of Robertshaw-Fulton Controls Company, Greensburg, Pennsylvania, **F. G. McCloskey** of Crise Controls Division, Aero Manufacturing Company, Columbus, Ohio, **D. J. Wood** of Titan Valve Mfg. Co., Cleveland.

Gas Boiler Division: chairman—**N. E. Westphal** of Weil-McLain Company, Michigan City, Indiana; vice chairman—**F. J. Nuntist,** vice president of Mueller Climatrol Division of Worthington Corporation, Milwaukee; executive committee member—**L. N. Hunter,** vice president of National Radiator Co., Johnstown, Penn.

Gas Wall and Floor Furnace Division: chairman—**Paul Hammond** of Holly Manufacturing Company, Pasadena, California; vice chairman—**Harley B. Weatherly** of Chattanooga Koyal Company, Chattanooga, Tennessee.

Gas Furnace Division: chairman—**Frank Meyer,** president of Meyer Furnace Company, Peoria, Illinois; vice chairman—**E. A. Jones,** director of engineering for Century Engineering Corporation, Cedar Rapids, Iowa; executive committee member—**G. W. Denges,** vice president of Williamson Heater Company, Cincinnati.

Gas Incinerator Division: chairman—**Frederick H. Martin,** vice president of Martin Stamping and Stove Company, Huntsville, Alabama; vice chairman—**Don Winegardner,** assistant sales manager of The Majestic Company, Huntington, Indiana; executive committee member—**Robert D. Smith,** secretary-treasurer of Incinerator Products Co., Detroit.

Unit Heater and Duct Furnace Division: chairman—**David R. Webster,** president of Reznor Manufacturing Company, Mercer, Pennsylvania; vice chairman—**Thomas B. Bromley,** vice president of Peerless Manufacturing Corporation, Louisville, Kentucky; executive committee member—**James C. Patterson,** manager Carrier Corporation, Syracuse, N. Y.

Vent Pipe Division: chairman—**L. P. Brown,** executive vice president of Van-Packer Corporation, Bettendorf, Iowa; vice chairman—**Chester Biome** of Metalbestos Division of William Wallace Company, Belmont, California; executive committee member—**B. A. Johnson.**

Direct Heating Division: chairman—**Robert H. Norris,** executive vice president of Dearborn Stove Company, Dallas, Texas; vice chairman — **Luke O. Morin Jr.,** vice president and general manager of Chattanooga Royal Company, Chattanooga, Tennessee; executive committee members — **Thomas D. Bromley,** vice president of Peerless Manufacturing Company, Louisville, Kentucky, **George H. McFadden,** president of Ohio Foundry and Mfg. Co., Steubenville, Ohio, and **Frederick H. Martin,** vice president of Martin Stamping and Stove Co., Huntsville, Ala.

Gas Clothes Dryer Division: chairman—**Norman Millard** of Crosley-Bendix Home Appliance Division, Avco Mfg. Corp., Cincinnati; vice chairman — **Frank Grimes** of Whirlpool Seager Corp., St. Joseph, Mich., executive committee members—**Norman Millard** and **C. H. Rippe** of Hamilton Mfg. Co., Two Rivers, Wis.

Question to management...

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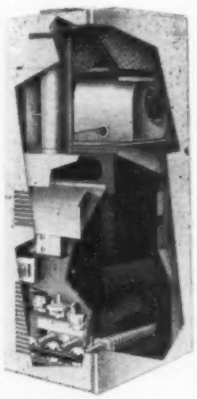
E-31

new Gas Appliances

Compact Furnaces—Coleman

Addition of four new thin, space-saving, gas-fired furnaces to its Blend-Air heating line has been announced by the Coleman Company, Wichita, Kansas. Both upflow and downflow models with capacities of 80,000 and 100,000 Btu input are now in production.



The new Coleman furnaces have been engineered to meet the exacting requirements of the new construction market for compactness, quiet operation, versatility of application, and ease of installation.

A combination of tight casing construction, heat exchanger design, and adjustable direct-drive blower enables the Coleman thin furnace to be used with the manufacturer's exclusive 3½-inch pre-engineered ducts and blenders as well as all conventional-type distribution systems.

All models are designed to work as an integral part of year-round air-conditioning systems. In most installations, cooling coils may be installed in the furnace plenum and the balance of the equipment located outside the house.

Dimensions of the 80,000 Btu upflow and downflow models are: Width, 14 in.; depth, 28 in.; height, 60 in. The 100,000 Btu units are 20 in. wide, 28 in. deep and 60 in. high.

All models are AGA approved for natural, mixed, manufactured and LP-gases and have 90 per cent high-altitude ratings on 80,000 Btu models and 100 per cent ratings on 100,000 Btu models.

Coleman Company, Inc., 250 North St. Frances, Wichita, Kansas.

Ultraglaze Heater—Southern

A new glass-lined water heater in the ultra deluxe class that is guaranteed for ten years, is now being placed on the market, known as the UltraGlaze.

The UltraGlaze is operated by an instant action American Control thermostat working in conjunction with thermo-magnetic pilot equipment, which insures fast recovery and makes the heater 100 per cent safe on all types of gas, according to the manufacturer. This new tank employs the same theory of insulation that is used on a thermos bottle.

Southern Heater Corporation, Los Angeles, California.

New "Decorator" cool cabinet, vented gas wall heater.

Cool Cabinet, Vented Wall Heater—Quaker

A new vented gas heater has been introduced by Quaker Manufacturing Company, heating division of Florence Stove Company.

This AGA-approved 25,000-Btu vented heater hangs on the wall. Unit can be vented directly into the wall, or it can be vented from the top into chimney outlet, which eliminates need for cutting into wall. Only 7 in. deep, the unit requires no floor space and does away with unlivable zones in front or at sides of heater. Special baffling keep the back and sides of this heater cool to the touch thus removing danger of scorched walls, draperies or furniture.

The heater also features double porcelained combustion chamber, deep port cast iron burner and "air stream" construction for increased warm air circulation.

Quaker Manufacturing Company, 1147 Merchandise Mart, Chicago 54, Illinois.

Automatic Heat Control On Top Burners—Robertshaw

Manufacturers of gas ranges are taking major steps to equip their new models with the latest available automatic control devices.

Ten major manufacturers have already laid plans to include top burner temperature controls in 1956 ranges. Many of these lines will be in dealers' hands within the next few weeks.

Several manufacturers said there are strong possibilities they would use the new controls on more than one burner.

Representatives of the gas range industry agree that development of top burner control will eliminate much of the guesswork involved in the preparation of meals. An executive of Robertshaw-Fulton Controls Company, which developed the "Thermal Eye" unit for gas ranges, claims that the new control will make it virtually impossible for a homemaker to burn, dry out or overcook food on top of the range — where 80 per cent of cooking is done. Accurate temperature control also removes the possibility of burned or scorched cooking vessels.

He said the new device offers accurate heat control over the entire range of top-burner cooking temperatures. It may be set at any temperature desired — low for warming foods, or high for searing and deep fat frying, any where between for other cooking.

In appearance, the new control resembles an ordinary burner with the addition of a round disc at the center. This disc or temperature sensing element is in contact with the cooking vessel at all times. By sensing the temperature of the cooking vessel and its contents, the unit automatically controls the height of the flame, raising and lowering it as required.

Robertshaw-Fulton Control Company, Drawer B, Youngwood, Pennsylvania.

O'Keefe & Merritt's Range Promotion Features "*No Quota*" Contest

O'Keefe & Merritt unveiled their company's range promotion plans for the fall months by announcing a complete campaign, highlighted by two separate contests for dealers and their salesmen. The dealer is not required to make special purchases to participate — nor are prizes pegged to any sales quota.

While local O'Keefe & Merritt salesmen gathered in Los Angeles to view the presentation of the plan, dealers throughout the United States received their first word of things to come in special letters mailed from Mexico City — destination of the all-expense-paid holiday offered to top prize winners in the two contests. This message from Mexico was the first of several mailings planned to keep dealer attention riveted on the double contest opportunity during the weeks ahead.

Both contests run concurrently. One is dubbed the salesman's "Favorite Feature" contest. In this, each salesman is asked to rank sales features of the O'Keefe & Merritt range in order of their importance to him in making the sale. Then he is asked to select his favorite feature of all and tell why he finds his choice the best "sales maker" in his daily experience. In addition to the 8-day all-expense-paid holiday in Mexico which goes to the winner of the Grand Prize — other winners will receive O'Keefe & Merritt ranges, Waltham wrist watches, and Bushnell binoculars.

The same prizes are offered in the second contest, which is the Bonus Bonanza for dealers and salesmen. For this, dealer salesmen simply record and report the serial number of each O'Keefe & Merritt range sold during the fall promotion period. Lady Luck does the rest when the time comes to draw the winning serial numbers.

The unusual feature of this second contest is "the forgotten man can participate, too." All contests for dealer salesmen require a good deal of work done by the dealer himself — to organize it, keep the salesmen working on it, recording results and reporting them. Although he usually gets extra sales out of any good contest, it was felt that he deserved even more. As a result, duplicate prizes will be awarded in the Bonus Bonanza. Every prize won by a salesman will be automatically duplicated in a like award to the dealer for whom he works — trip to Mexico, watches, ranges, and binoculars.

The two contests offer a total of nearly $15,000 worth of prize awards — and over 100 chances to win.

This dealer level promotion during the fall months will be supported by an exceptionally heavy consumer advertising campaign pegged to the range features on which the first contest is based.

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DRAGNET *leak detector*

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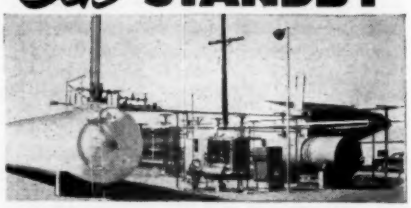

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DEATHS

Cecil L. Hightower

Cecil L. Hightower, former safety director and, since the first of the year, consultant on employee relations for the United Gas companies, died accidentally August 26, while fishing near Bethany, Louisiana. He was 53.

Born in Navarro County, Texas, he was educated in Midlothian and Dallas. He began with United Gas as a safety engineer in 1934 at Houston. In 1938 he was advanced to the position of safety director and transferred to Shreveport in 1940. He served as safety director until named consultant last January 25. He would have completed 21 years of continuous service with the companies September 15.

Hightower first entered the safety field when he went to work in 1922 as a safety engineer for the Dallas Power and Light Company. Later, he was personel director.

He was the author of numerous articles and a book on safety, the first editor of *United Gas Log* and was the originator of features that appear in the magazine.

Statement Required by the Act of August 24, 1912, as Amended by the Acts of March 3, 1933, and July 2, 1946 (Title 39, United States Code, Section 233) Showing the Ownership, Management, and Circulation of

AMERICAN GAS JOURNAL

1. The names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher: The Petroleum Engineer Publishing Company, P. O. Box 1589, Dallas, Texas.

Editor-in-Chief: F. H. Love, P. O. Box 1589, Dallas, Texas.

Editorial Director: Hilding H. Carlson, 52 Vanderbilt Avenue, New York, New York.

Business Manager: Joe B. Woods, P. O. Box 1589, Dallas, Texas.

2. The owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.)

American Security Life Insurance Company, Marshall, Texas.

Fidelity National Life Insurance Company, 403 South Akard Street, Dallas, Texas.

Investors Life Insurance Company, 403 South Akard Street, Dallas, Texas.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

Reserve Life Insurance Company, 403 South Akard Street, Dallas, Texas.

K. C. Sclater, 6365 Camino de la Costa, La Jolla, California.

4. Paragraph 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

Joe B. Woods, Business Manager.

Sworn to and subscribed before me this 30th day of September, 1955.

(Seal) Lillian H. Johnston
Notary Public, Dallas County.
(My commission expires June 1957.)

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HAYS

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✓ STOPS -Meter
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Tamper Proof
and
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STOPS
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Black or Galvanized
Also All Brass Stops

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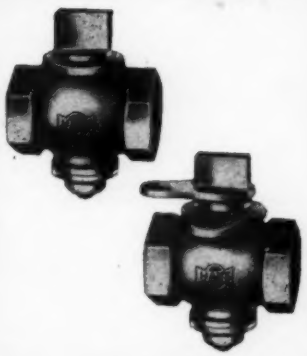
Flat Head—
Flat Head with Lockwing



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Full Range of Sizes

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Quality Assured . . .
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for Over 80 Years

STANDARD PACKAGING

for Easy Handling,
Space Saving Storage . . .
Another HAYS First

HAYS

GAS SERVICE PRODUCTS
HAYS MANUFACTURING CO.
ERIE, PA.

Gas Appliance Industry news

Minneapolis Man Wins Magic Chef Contest

H. W. Rosien (center), Minneapolis, was the winner of the recent Magic Chef dealer contest. He is shown receiving his prize, a new 1955 Buick Century, in St. Louis recently. Rosien

won the car in the nation-wide contest for submitting the best series of ideas that help sell Magic Chef commercial gas cooking equipment. Congratulating him is Kenneth O. Dupree (right), Magic Chef general sales manager. Tracy B. Madole, left, is merchandise manager of Magic Chef's commercial sales department. Rosien is a veteran of 36 years in planning and selling of food service equipment.

Whirlpool Merger Concluded

Stockholders of Whirlpool Corporation and Seeger Refrigerator Company have approved the merger of those companies and Delaware Appliance Corporation to form Whirlpool-Seeger Corporation. Air conditioning and Estate stove departments of RCA are included in the assets of Delaware Appliance Corporation.

Agreement of merger designated the following to serve as officers of Whirlpool-Seeger: Walter G. Seeger, chairman, board of directors; Elisha Gray II, president; Mason Smith, vice president and treasurer; John S. Holl, vice president, Seeger division; Edward C. Cudmore, secretary.

Shareholders Approve Hupp-Perfection Merger

Stockholders of Hupp Corporation and Perfection Industries, Inc., in separate meetings August 29, approved the plan to merge two companies. Merger was favored by more than 97%. Perfection is now the Perfection Industries division of Hupp Corporation.

Officers of the company created by the merger are Don Gearheart, president; Donald S. Smith, vice president; John B. Fowler, vice president; Willard A. Giddens, treasurer; and Manning E. Case, Jr., secretary.

The merged companies will have capital and surplus of approximately $18,000,000 and total assets in excess of $27,000,000. They will have plants in Cleveland, Detroit, Chicago, Carlisle, Pennsylvania, and Waynesboro, Georgia.

Servel Appoints Indiana, California Distributors

Appointment of the Servair Heating & Cooling Corporation, Indianapolis, Indiana, and W. V. Alton Sheet Metal Company, Marysville, California, as distributors of Servel air conditioning products in the Indianapolis and Marysville trading areas was announced by Servel, Inc.

Norge Names New Distributor

B. H. Spinney Company, Inc., Syracuse, New York, was appointed distributor for Norge Division, Borg-Warner Corporation, effective October 1.

Philip Harper Jr., Made Harper-Wyman VP

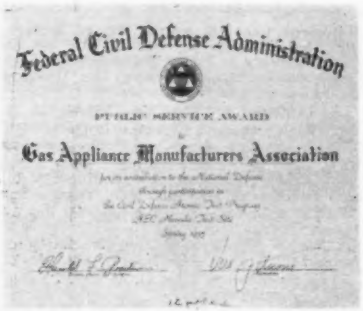
Philip S. Harper Jr., has been elected executive vice president of Harper-Wyman Company, manufacturers of gas range and gas appliance components.

P. S. Harper Jr.

He joined the firm on a part-time basis in 1940. In 1950, after three years in the army and graduation from Dartmouth College, he was made manager of the Princeton, Illinois plant. In 1954 he became general manager of the company, which has administrative offices and two plants in Chicago.

GAMA Awarded Civil Defense Recognition

Civil Defense Administration public service award given to Gas Appliance Manufacturers Association in recogni-



tion of its participation in the atomic test program conducted at Yucca Flat, Nevada, in May. More than 30 manufacturers contributed gas appliances and equipment to furnish the homes that were tested in Operation Cue.

Portion of the spacious appliance display area in Uinted Gas Corporation's new area office in Palms Shopping Center in Houston. A 100-seat air conditioned auditorium and two modern kitchens equipped with the latest gas appliances are among the outstanding features of the new office. Everett E. Weaver, business office representative, is seated behind the counter in the accounting section.

Whirlpool-Seeger Announces New Sales Department Set-up

Structure and initial administrative personnel of the sales department for Whirlpool-Seeger Corporation have been announced.

Multiple sales functions pertaining to laundry, refrigeration, range and air conditioner appliances will be administered under the classifications of merchandise development and distribution.

John W. Craig, vice president and former RCA vice president, is director of merchandise development. Jack Sparks is general sales manager for distribution. Roy Howard is merchandising manager, and Harvey Weimer, formerly with Crosley-Bendix, is market research manager.

Merchandise development comprises four divisions, one for each of the four major appliances, with an individual general, product, assistant product, sales and sales promotion manager.

John M. Crouse is general manager of the laundry equipment division. Lee H. D. Baker, former vice president of Admiral Corporation, is general manager of the refrigerator division. Austin Rising, formerly with RCA, is general manager of both range and air conditioner divisions.

Other initial appointments under merchandise development are laundry equipment division: C. E. Morgenstern, product manager; John Engelhardt, assist. product manager; E. C. Reiner, sales manager and Franklin T. Grimes, sales promotion manager and range division: Thomas Bartley, sales manager.

Rheem Names Heinis As Product Manager

Vearl J. Heinis is the new general manager of Rheem Products division, Rheem Manufacturing Company.

Vearl J. Heinis

Heinis moves into his new position of general management after having been general sales manager of Rheem Products division. In this capacity, he directed sales activities of Rheem water heaters, central warm air heating units, air conditioning, clothes dryers and other Rheem products.

Joining the Rheem sales organization in 1946, he served in several positions where he managed sales of plumbing and heating products.

MEN at Work

John Wood Company Makes Two Sales Appointments

Richard L. Griffin has been promoted to assistant sales manager of John Wood Company, heater and tank division.

Griffin, a former student of Dartmouth, joined the W. A. Case & Son Manufacturing Company in 1933. In 1945, he was appointed sales and plant manager of Case's Norristown, Pennsylvania, plant. He became associated with John Wood Company last year when this company purchased the Case Norristown plant.

Leroy Norris has been named sales representative for John Wood Company in the Washington, D. C., and Northern Virginia areas.

New Servel Headquarters in Kansas City and Pittsburgh

Servel, Inc., Evansville, Indiana, has established two new appliance sales regions, with headquarters in Kansas City, Missouri, and Pittsburgh, Pennsylvania. Stanford J. Grimm and Raymond Lubar are the regional managers.

The moves, part of Servel's program to concentrate greater selling effort in

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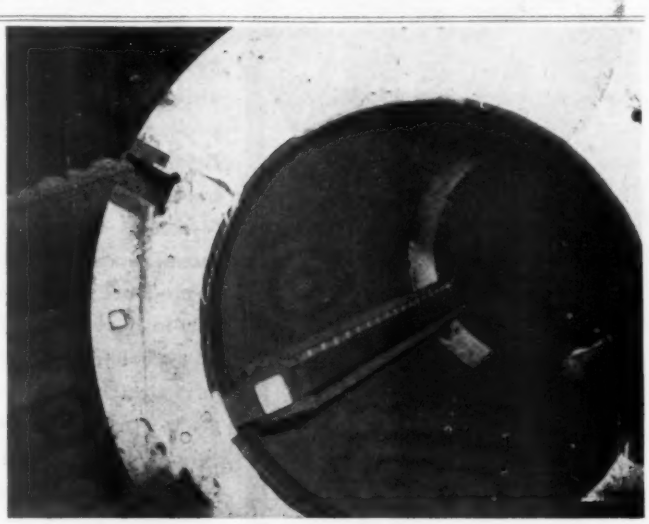

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318 CLIFF LANE CLIFFSIDE PARK, N. J.
Tel: Cliffside 6-10000 (Ten Thousand)

markets where conditions for refrigerator sales expansion are most favorable, increases the company's sales regions from five to seven. Other regional headquarters are in New York City, Atlanta, Chicago, Dallas, and Los Angeles.

The Kansas City region, under Grimm, embraces all of Kansas, Nebraska, Colorado, Wyoming and Utah, most of Missouri, Illinois, South Dakota, and Idaho, and parts of Montana, Nevada, and Oregon.

The Pittsburgh region, under Lubar, includes western Pennsylvania, all of West Virginia, most of Ohio and parts of Michigan, Indiana, Kentucky, and Virginia.

Handley Named Iron Fireman Director of Manufacturing

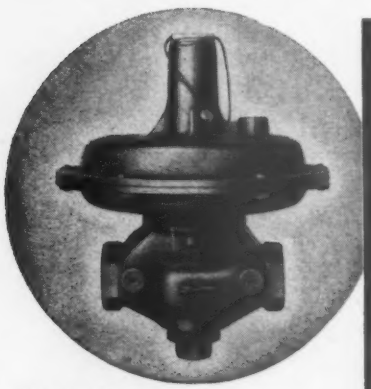
R. K. Handley has been named director of manufacturing for all Iron Fireman plants in the United States and Canada.

His new responsibility covers five existing plants plus one under construction at Ligonier, Indiana. The plants produce oil, gas, coal heating and power systems, electrical and electronic equipment, and aircraft parts and equipment.

Handley had been superintendent for five years of the Iron Fireman electronics division in Portland, Oregon.

Steady

REYNOLDS LOW PRESSURE REGULATORS



PIPE SIZES:
¼" to 8"
¼" to 3" with screw connections
3" to 8" with flange connections

Reynolds Low Pressure Regulators guarantee steady, constant, unvarying outlet pressure even though the volume varies and inlet pressure fluctuates. Precision built and delicately balanced for accurate performance on low pressure installations, the units illustrated are backed by factory tests over a wide range of operating conditions. Reynolds Low Pressure Regulators are economical and safe. Our Engineering Department is at your service.

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Seidenglanz & Co.
2nd Unit, Santa Fe Building
Dallas, Texas

Eastern Appliance Company
281 Vassar Street
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Waldo S. Hull
258 Lee Circle
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GAS CONTROL Since 1892

Reynolds Gas Regulator Co.
ANDERSON, INDIANA, U. S. A.

GAS CONTROL SINCE 1892

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Approximately 2700 feet of 16" O. D. Electric Weld Line Pipe, Black P. E. Bev. 30°, 52, 36#, 5/16" wall in double random lengths, coated, spec. BMGA-2. Approximately 500 feet of 16" O.D. ditto, with prime coat only. This is new pipe, never been used, and is located in southeastern Massachusetts. Contact George M. Robinson, Superintendent of Distribution, Fall River Gas Company, Fall River, Massachusetts.

New Surplus Material. 175 Titan Snap-Action Water Heater Thermostats, 1¾" shank with 1" male thread. Priced to move. Central Electric & Gas Company, Lincoln, Nebraska, Attn: Purchasing Agent.

ENGINEER

Large eastern gas utility desires services of an engineer interested in appliance testing.

Work includes necessary recommendations to manufacturers for changes in design to meet rigid requirements. Salary commensurate with abilities.

Reply giving age, education and experience to Box 39, American Gas Journal, P. O. Box 1589, Dallas, Texas.

RUUD *Laundry Rated* ALCOA® ALLOY

Automatic washers have created terrific additional demands on water heaters. But many a housewife doesn't know—or finds out too late—that her water heater just wasn't made for the job. Now you can show her one that *is*.

The Ruud Laundry-Rated Alcoa Alloy automatic gas water heater—available in six models—will keep up with any automatic washer made—continuously—and still supply enough hot water for bath, kitchen—every household use.

- Delivers more hot water, faster, than any other water heater of its size and price class.
- Optional Ruud duo-temp feature delivers two temperatures from the same tank at the same time: 180° extra-hot water to serve automatic washers; 125° tap-safe water for bath, shower and lavatory.
- First and only water heater with tank of solid Alcoa Alloy aluminum. Uses Gas, the fast, economy fuel.

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AND LET HER KNOW ALL THIS ABOUT THE RUUD ALCOA ALLOY!

- Can't cause rusty, discolored hot water—ever—because its solid aluminum alloy tank is red-rust-proof.
- Same moderate price class as lined-steel-tank types! Gives extra service and economy for more trouble-free years.

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☐ Please have a water heating specialist call on me
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